



11729.1 contg

TTAGAGAGGCACAGAAGGAAGAAGAGTAAAAGCAGCAAAGCCGGTTTTGTTTGTTTGTTT
 GTTTGAGATGGAGTCACTCTGTTGCCAAGCTGGAGTACAACGGCATGATCTCAGCTCGCTGCAACCT
 CCGCCTCCCACGTTCAAGTGATTCTCCTGCCAGCCTCCAAGTAGCTGGATTACAGGCGCCCGCCAC
 CACGCTCAGCTAATTTTTGTATTTAGTAGAGACAGGGTTCACCAAGGTTGCCAGGCTGCTCTGAA
 CTCTGACCTCAGGTGATCCACCCGCCCTGGCCTCCCAAAGTGCTGGATTACAGGCGTGAGCCACCACG
 CCCGGCCCCAAAGCTGTTCTTGCTTACAGCTAAAGCTCCTGCCATGCAGTATCTACATAACTGAC
 GTGACTGCCAGCAAGCTCAGTCACTCCGTGGTC

11729-45.21.21.cons1

TAGGATGTGTTGGACCCCTGTGTCAAAAAAACCTCACAAAGAATCCCTGCTCATTACAGAAGAAGATGC
 ATTAAAAATGGGTTATTTCAACTTTATCTGAGGACAAGTATCCATTAAATTATTGTGTCAGAAGAAGATTG
 AATACCTGCTTAAGAAGCTTACAGAAGCTATGGGAGGAGGTGGCAGCAAGAACAAATTGAACATTAAAAA
 TCAACTTGATGACAGTAAAATGGCCTTCTGCATGGAACTATTGAGCTATTGGAAATGGACAGTTA
 GCAAAGGCATGGACCGGCAGACTGTGCTATGCCATTAAATGAAGTCTTAATGAACATTATTAGATGTG
 TAAAGCAGGGTTACATGATGAAAAAGGGCCACAGACGGAAAAACTGGACTGAAAGATGTTGACTAAAA
 CCCAACATAATTCTTACTATGTGAGTGAGGATCTGAAGGATAAGAAAGGAGACATTCTGGATGAAAAT
 TGCTGTAGAGTCCTGCCAGCAAAGATGGAAA

11729-45.21.21.cons2

TTAGAGAGGCACAGAAGGAAGAAGAGTAAAAGCAGCAAAGCCGGTTTTGTTTGTTTGTTT
 GTTTGAGATGGAGTCACTCTGTTGCCAAGCTGGAGTACAACGGCATGATCTCAGCTCGCTGCAACCT
 CCGCCTCCCACGTTCAAGTGATTCTCCTGCCAGCCTCCAAGTAGCTGGATTACAGGCGCCCGCCAC
 CACGCTCAGCTAATTTTTGTATTTAGTAGAGACAGGGTTCACCAAGGTTGCCAGGCTGCTCTGAA
 CTCTGACCTCAGGTGATCCACCCGCCCTGGCCTCCCAAAGTGCTGGATTACAGGCGTGAGCCACCACG
 CCCGGCCCCAAAGCTGTTCTTGCTTACAGCTAAAGCTCCTGCCATGCAGTATCTACATAACTGAC
 GTGACTGCCAGCAAGCTCAGTCACTCCGTGGTC

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TCTTTTCTTCGATTCCTCAATTGTCACGTTGATTTATGAAGTTGTTCAAGGGCTAACTGCTGTGTTAT
 TATAGCTTCTCTGAGTCCTCAGCTGATTGTTAAATGAATCCATTCTGAGAGCTTAGATGCAGTTCTTT
 TCAAGAGCATCTAATTGTTCTTAAGTCTTGGCATAATTCTCCTTCTGATGACTTTATGAAGTAAACT
 GATCCCTGAATCAGGTGTTACTGAGCTGCATGTTTAATTCTCGTTAATAGCTGCTCTCAGGGACC
 AGATAGATAAGCTTATTTGATATTCTTAAGCTTGTGAAGTTGTTGATTTCCATAATTCCAGGTACA
 CTGTTATCCAAAACTCTAGCTCAGTCTTGTGTTGCTTCTGATTGGACATCTGTAGTCTGCCGTGAG
 ATCTGCTGATGXTTCCATTCACTGCTCCAGTTCCAGGTGGAGACTTXCTTCTGGAGCTCAGCCTGACA
 ATGCCCTTCTGXTCCCT

11731.2contig

AGCCAGATGGCTGAGAGCTGCAAGAAGAAGTCAGGATCATGATGGCTCAGTTCCCACAGCGATGAATGG
AGGGCCAAATATGTGGGCTATTACATCTGAAGAACGTACTAACGATGATAAACAGTTGATAACCTCAAACC
TTCAGGAGGTTACATAACAGGTGATCAAGCCGTACTTTTCCTACAGTCAGGTCTGCCGCCCGGTTT
AGCTGAAATATGGGCCTTACAGATCTGAACAAGGATGGGAAGATGGACCAGCAAGAGTTCTATAGCTA
TGAAACTCATCAAGTAAAGTTGCAGGGCAACAGCTGCCTGTAGTCCTCCCTATCATGAAACAACCCC
CTATGTTCTCTCCACTAATCTCTGCTCGTTGGATGGGAAGCATGCCAATCTGTCCATTCATCAGCCAT
TGCCTCCAGTTGCACCTATAGCAACACCCTGTCTGCTACTTCAGGGACAGTATTCCCTCCCTAATGA
TGCCTGCTCCCTAGTGCCTCTGTAGTA

11734.1contig

AATAGATTAATGCAGAGTGTCAACTCAATTGATTGATAGTGGCTGCCTAGAGTGCTGTTGAGTAGGTT
TCTGAGGATGCACCCCTGGCTGAAGAGAAAGACTGGCAGGATTAACAAATATCTAAAATCTCACTTAGGA
GAAACCACAGGCACCAGAGCTGCCACTGGTCTGGCACCAAGGCCAGCGAAGAGCCCAAAT
GTGAGAGTGGCGGTCAAGGCTGGCACCAAGCACTGAAGCCACCACTGGTCTGGCACTGGCACTGGCACTG
TTATTGGTACTGGTACTGGCACCAAGTGCTGGCACTGCCACTCTCTGGGCTTGGCTTAGCTTCTGCTCC
CGCCTGGATCCGGCTTGGCCAGGGTCCGATATCAGCTCGTCCAGTTGCAGGGCCGGCAGCATT
TCCGAGCCGAGCCCAATGCCATTGAGCTCTAATCTGGCCCTAGCCTGGCTCAGCTGCAGCCTCAG
CTGCAGCCTCAAATCCGCTTCCATGCCTCTCGTAC

11734.2contig

GCCAAGAAAGCCGAAAGGTGAAGCATTGGATGGGGAAAGAGGGATGGCAGCAGTGATCAGAGTCAGGCTT
CTGGAACCACAGGTGGCGAAGGGTCTAAAGGCCATAATGGCCTCAATGGCCCGCAGGGCTCAAGGG
GTCCCATAGCCTTTGGGCCCGCAGGGCATCAAGGACTCGGTTGGCTGCTGGGCCGGAGAGCCTTGCT
CTCCCTGAGATCACCTAAAGCCGTAGGGCAAGGCTGCCGTAGAGCTGCCAAGCTCCAGTCATCCCAA
GAGCCTGAAGCACCACCTCGGGATGTGGCCCTTTGCAAGGGAGGGCAAATGATTGGTGAAGTACC
TTTGGCTAAAGACCAAGACGAAGATTCCATCAAGCGCTCGGACATGCTGAAGGACATCATCAAAGAAC
ACTGATGTGTACCCGAAATCATTGAACGAGCAGGCTATTCTGGAGAAGGTATTGGATTCAATTGAAG
GAAATTGATAAGAATGACCACTGTACATTCTCTCAGC

11736.1contg

GAGGTCTCACTATGTTGCCAGGCTGTTCTGAACCTCCTGGGATCAAGCAATCCACCCATGTTGGCTCCA
AAAGTGCTGGGATCATAGGCGTGAGCCACCTCACCCAGCCACCAATTTCATCAGGAAGACTTTCTTC
TTCAAGAAGTGAAGGGTTCCAGAGTATGCTACACTATTGCTTGCCTGAGGGTGAATCAAAATTGCTTGC
TAAAAGGTTAGGATGGTAAAGAATTAGATTCTGAATGCAAAATAAAATGTGAACATGAACATTAGGT
AATACATATTCTAAAATAATTATTACATATTCTGATTACAGAAATAATGTATGAAATGCTTGTAGTT
TCTGGAGTAAACTCCATTACTCATCCCAAGAAACCATATTATAAGTATCACTGATAATAAGAACACAGGAC
CTTGTCTAAATTCTGGATAAGAGAAATAGTCTGGGTGTTGXTCTAATTGATAAAATTACTGTCCATC
TTTAGTTCAAGAACACAAAAA

11736.2contig

AAGCGGAAATGAGAAAGGAGGGAAAATCATGTGGTATTGAGCGGAAAATGCTGGATGACAGGGCTCAGT
CCTGTTGGAGAACTCTGGTGGTGTAGAACAGGGCCACTCACAGTGGGTGCACAGACCAGCACGG
CTCTGTGACCTGTTACAGGTCCATGATGAGGTAACAAATACACTGAGTATAAGGGTTGGTTAGAAAC
TCTTACAGCAATTGACAAAGTAATCTCTGTGCAGTGAATCTAAGAAAAAAATTGGGGCTGTATTTGTATGT
TCCTTTTTTCATTCATGTTCTGAGTTACCTATTTTATTGCATTTACAAAGCATCCTCCATGAAGGACC
GGAAGTTAAAACAAAGCAGGTCCTTATCACAGCACTGTCGTAGAACACAGTCAGAGTTATCCACCCAAG
GAGCCAGGGAGCTGGCTAAACCAAAGAATTGCTTTGGTTAATCATCAGGTAATTGAGTTGGAATTGTT
TTAATCCCATCATTACCAAGGCTGGAXGTG

11739-1&2

CCGGGGCTCCTGTCAGACCCCTGACCCCTCCCTCCAAGGCTCAACCGTCCCCAACAAACGCCAGCCTTG
TACTGATGTCGGCTGCGAGAGCCTGTGCTTAAGTAAGAACAGGCCTTATTGGAGACATTCAAGCAAAGGT
TGGACAACACTTTCCAGAACAGAAAGGAAACTCATGCATCAGAAAAGGTGACTAATAAGGTACCAAG
AATATGGCTGCACAAATACCAGAACATCTGATCAGATAAAACAGTTAAGGAATTCTGGGGACCTACAATAA
CTTACAGAGACCTGCTTTGGACTGTGTTAGAGACTTCACAACAAGAGAAGTAAAACCTGAAGAGACCACC
TGTTCAAGAACATTGCTTACAGAAATATTAAAAATGACACAAAGAACATCCATGAGATTTCAGGAATATCATA
TTCAGCAGAACATGAAGCCCTGGCAGCCAAGCAGGACTCCTGGCCAACCACGATAGAGAACGTCCTGATGG
ATGAACCTTGATGAAAGATTGCCAACAGCTGCTTATTGGAAATGAGGACTCATCTGATAGAACATCCCCTGA
AAGCAGTAGGCCACCATGTTCAACCCTGTCTGACTGTTGGCAAATGGAAACCGCTGGAGAACAAAATT
GCTATTACCAAGGAATAATCACAAATAGAAGGTCTATTGTTCAAGTAAAGATGCAACATTGTTGAG
GCCTTATGATTCAAGCTGGTCACTTGATTAGAAAAATAACCAATTGTTCTCAATTGACTGTTAATT
TAAAGCAACTTATGTGTTGATCATGTATGAGATAGAAAAATTTTATTACTCAAAGTAAATAATGGA

11740.1.contig

GAAAAAAAATAAAACACACTTTGCGAAAACGGTGGCCCTAAAGAGGAAAAGAACATTCACCAATATAAAT
CCAATTATGAAAACGTGACAATTAAATCAAGAACACTTTGTAATGAAGCTAGCAAGTGATGATATGAT
AAAATAACGTGGAGGAAATAAAACACAAGACTTGGCATAAGATATATCCACTTTGATATTAAACTTGTGA
AGCATATTCTCGACAAATTGTGAAAGCGTTCTGATCTTGTGTTCTCCATTCAAATAAGGAGGCATATC
ACATCCCAGAGTAACAGAAAAAGACATTGGCATTGAGATGAACCAAGAACACAAAACAAA
ACGAACAAAGTGTCAATTCTAGCCTCTGAAATAACCTTGAAACATCTCCTACAAGGCACCGTGATT
TTGTAATTCTAACCTGAAGAAAATGTGATGACTTTGGACATGAAAATCAGATGAGAAAATGTGGTCTT
CCAAAGCCTGAACCTCCCTGAAAACCTTGCA

Fig. 1C

11766.1.contig

CTGGGATCTTCTTGTATGTCATAAAAGACTCTCTCTCCCTTCATCCTCTTCATCCTCTCTGTA
CACTGCTGCCGGTACAACGGCTATCTTGCTTATCCTGAGATGAAGATGATGCTCTGTTCTCCTACC
ATAACTGAAGAAATTGCGCTGGAAGTCGTTGACTGGCTGTTCTGACTTCACCTCTTGTCAAACCTGA
GTCTTTACTCATGCCCTCAGCTTCCACAGCATCTCATCTGGATGTTATTTCAAAGGGCTCACTGA
GGAAACTTCTGATTCAAGAGTCGAAGAGTCAGTGTGATTTCTCTCATTTGCTGCAAATTGCTCTTG
CTGCTGTGCTCTCAGGCAACCCATTGTTGTCATGGGGCTGACAAAGAAACCTTGGTCGATTAAGTGG
CCTGGGTGTCCTCAGGCCATTATATTAGACCTCTCAGTATAGCTTGGTAATTCCAGGAAACATAACACC
ATTCAATTGATTTAACTATTGGAATTGGTTT

11766.2.contig

GAGGGTTGGTGGTAGCGGCTGGGAGGTGCTCGCTCTGCGCTCTGCTCTCGCACGCTCCCCGG
CTCCCTCGTTCCCCCCCCCGTCGCCCTCGGTGCGAGGTGTCGAGGGAGGGAGGGCGTGGACTCC
GGGGTGGGGGAGGCAGTCCGGTCCCCAAGAGACCCGCGGAGGGAGGCAGGCTGTGAGGGACTCC
GGGAAGCCATGGACGTCGAGAGGCTCCAGGAGGGCCTGAAAGATTGAGAAGAGGGGAAAAGGAAG
TTGTCTGTGATGTCAGTTCTTGTCATGTAGCCAAGACTGGAGAAACAATGATTAGCTGGTCCAAT
TTAAAGGCTATTTATTTCAAACCTGGAGAAAGTGTGATGGATGATTCAAGCTCAGCTCGAGCCAAGAG
GTCCTCCCAACCTAATGTCGA

11773.2.contig

AAGCAGGCGGCTCCCGCGCTCGCAGGGCCGTGCCACCTGCCCGCCGCTCGCTCGCTGCCCG
CGCGCCGCGCTGCCGACCGCCAGCATGCTGCCGAGAGTGGCTGCCCGCCTGCCGXTGCCG

11775-1&2

ATCTCTGTATGCCAATATTAATATAATCTTGAAACAAGTTAGATGAAATAAAATCAAAGTTGCAA
AACGTGAAGATTAACCTAATTGTCATTCCTCATTGCCCAAATCAGTATTTTTATTCATGCAAA
GTATGCCTCAAACGTCTAAATGATATGATACACAAACCAAGTTCAAATAGTAAAGCCAGTCAT
CTTGAATTGTAAGAAATAGGTAAGGATTATAAGACACCTTACACACACACACACACACAGTGTGC
ACGCCAATGACAAAAAACAATTGGCCTCTCCTAAATAAGAACATGAAGACCCCTTAATTGCTGCCAGGAGG
GAACACTGTGTCACCCCTCCCTACAATCAGGTAGTTCTTAATCCAATAGCAAATCTGGCATATTGA
GAGGAGTGATTCTGACAGCCACGTTGAAATCCTGTGGGAACCATTGTCACCCACTGGTCCCTGAA
AAAATGCCAATAATTTGCTCCACTTCTGCTGCTGCTGCTCTCCACATCCTCACATAGACCCAGACCCGC
TGGCCCTGGCTGGCATGCAATTGCTGGTAGAGCAAGTCATAGGTCTGCTTTGACGTACAGAAGCG
ATACACCAAATTGCCCTGGTCGGTCAATTGTCATAACCAGAGA

Fig. 1D

11777.1&2.cons

CAGACGGGGTTCACTATGTTGGCTAGGCTGGCTTGAACTCCTGACTTCAGGTGATCTGCCTGCCTGGC
CTCCCAAAGTGCTGGATTACAGGCATAAGCCACTGCGCCGGCTGATCTGATGGTTCATAGGCTTT
CCCCTTGTCTAGCACTCTCCTGCCATGTGAAGAAGGACATGTTGCTCCCTCACACG
ATTGTAAGTTGTTCTGAGGCCTCCCCGGCATGCTGAAGTGTGAGTCATTAAACCTCTTCTTATAAA
TTATCCAGTTGGGTATGTCTTATTAGTAGAATGAGAACAGACTAATACAACCTTAAAGGAGACTGACG
GAGAGGATTCTCTGGATCCCAGCACTCCTCTGAATGCTACTGACATTCTTGTAGGGACTTAAACTGG
GAGATAGAAAACAGATTCCATGGCTCAGCAGCCTGAGAGCAGGGAGGGAGCCAAGCTATAAGTGCATGG
GCAGCCTCCCTGAGGCCAGGTGTGGCCGAACCTGGCAGTGTGcACCCACCCCCACCAGGGCCAAGT
CCTGTCCTGGAGAGCCAAGCCTCAATCACTGCTAGCCTCAAGTGTCCCCAAGCCACAGTGGCTAGGGGG
ACTCAGGGAACAGTCCAGTCTGCCCTACTTCTTACCTTACCCCTCATACCTCCAAAGTAGACCATGT
TCATGAGGTCCAAAGG

11779.2.contig

AAGCGAGGAAGCCACTGCGCTCCTGGCTAAAAGCGGCGCCAGGCTCGGGACAGAGGGAACCGCGAAG
AACAGGAGCGGAAGCTGCAGGCTGAAAGGGACAAGCGAATCGAGAGGAGCAGCTGGCCCGGGAGGCT
GAAGCCCGGGCTGAACGTGAGGCCGAGGCGCGGAGACGGGAGGAGCAGGAGGCTGAGAGAAGGCGCA
GGCTGAGCAGGAGGAGCAGGAGCGACTGCAGAACGAGAAAGAGGAAGCCGAAGCCCGTCCCAGGAAAG
AAGCTGAGCGCCAGCGCCAGGAGCGGGAAAAGCAGCTTCAGAAGGAGGAACAGGAGAGACAAGAGCGAA
GAAAGCGGCTGGAGGAGATAATGAAGAGGACTCGGAAATCAGAAGCCGCCGAAACCAAGAAGCAGGATGC
AAAGGAGACCGCAGCTAACATTCCGGCCAGACCCCTGTGAAAGCTGTAGAGACTCGGCCCTCTGGGCT
TCCAGAAAGGATTCTATTGCAGAAAGGAAGGAGCTGGCCCCCAXGGA

11781 & 37.cons

CTCTGTGGAAAAGTGTGAGGAATGAAATTACCATACCCATGTTCTCATCCCCAAGCAAAGTGTGGTCT
GATTACTGCAACACAGAGAACGAGAAGAACCTTCCATACAGGATCAGCAGGGCCTCATCACACTGGG
CTGGATTCACTCACCCACACAGACCGCGTTCTCCAGTGTGACCTACACACTCACTGCTCTTACCA
GATGATGTTGCCAGAGTCAGTAGCCATTGTTGCTCCCCAAGTCCAGGAAACTGGATTCTTAAACTAAC
TGACCATGGACTAGAGGGAGATTCTTCTGTCGCCAGAAAGGATTCCATCCACACAGCAAGGATCCACCTC
TGTTCTGTAGCTGCAGCACGTGACTGTTGGACAGAGCAGTGACCATCACAGACCTCGATGAGCGTT
GAGTCCAACACCTCCAAGAACAAACAAAACCATATCAGTGTACTGTAGCCCCTAATTAAAGCTTCTAGAAA
GCTTGGAAAGTTTGATAGATAGTAGAAAGGGGGCATCAXTGAGAAAGAGCTGATTTGTATTCAGGTT
TGAAAAGAAATAACTGAACATATTTTAGGCAAGTCAGAAAGAGAACATGGTCACCCAAAGCAACTGTAA
CTCAGAAATTAAAGTTACTCAGAAATTAAAGTAGCTCAGAAATTAAAGAAAGATGGTATAATGAACCCCCATATA
CCCTTCCTCTGGATTCCAATTGTTAACATTTTCTCAGCTATCCTCTAATTCTCTAATTCA
ATTGTTATATTACCTCTGGCTCAATAAGGGCATCTGTGAGAAATTGGAGCCATTAGAAAATCTT
TGGATTTCCTGTGGTTATGGCAATATGAATGGAGCTTATTACTGGGGTGAGGGACAGCTACTCCATTG
ACCAGATTGTTGGCTAACACATCCCGAAGAACATGATTGTCAGGAATTATTGTTATTAATAATATTCA
GATATTTCCTCTACAATAAGTAACAAT

Fig. 1E

11781-76-87-37

CTCTGTGGAAAATGATGAGGAATGAATTACCATACCCATGTTCTATCCCCAAGCAAAGTGTGGGTCT
GATTACTGCAACACAGAGAACGAAGAACCTTTCCCTCATACAGGATCAGCAGGGCCTCATCACACTGGG
CTGGATTCACTCACCCACACAGACCGCGTTCTCCAGTGTGACCTACACACTCACTGCTTACCA
GATGATGTTGCCAGAGTCAGTAGCCATTGTTGCTCCCCAAGTTCCAGGAAACTGGATTCTTAAACTAAC
TGACCATGGACTAGAGGAGATTCTTCCTGTCGCCAGAAAGGATTCCATCCACACAGCAAGGATCACCTC
TGTCTGTAGCTGCAGCCACGTGACTGTTGTGGACAGAGCAGTGACCATCACAGACCTCGATGAGCGTT
GAGTCCAACACCTCCAAGAACAAACAAACCATATCAGTGTACTGTAGCCCCCTTAATTAGCTTCTAGAAA
GCTTGGAAAGTTTGTAGATAGTAGAAAGGGGGCATCACCTGAGAAAGAGCTGATTTGTATTCAGGTT
TGAAAAGAAAATACTGAACATATTTTACGGCAAGTCAGAAATTAAAGAACATGGTCACCCAAAAGCAACTGTAA
CTCAGAAATTAAAGTTACTCAGAAATTAAAGTAGCTCAGAAATTAAAGAACATGGTATAATGAACCCCCATATA
CCCTTCCTCTGGATTCCAATTGTTAACATTTCCTCTCAGCTATCCTCTAATTCTCTAATTCA
ATTGTTATATTACCTCTGGGCTCAATAAGGGCATCTGTGCAGAAATTGGAAGCCATTAGAAAATCTT
TGGATTTCTGTGGTTATGGCAATATGAATGGAGCTTACTGGGGTGGAGGACAGCTTACTCCATTG
ACCAGATTGTTGGCTAACACATCCCGAAGAACATGATTTGTCAAGGAATTATTGTTATTAAATAATTTCAG
GATATTTCCTCTACAATAAGAACATTA

11784-1 & 2

GGACGACAAGGCCATGGCGATATCGGATCCGAATTCAAGCCTTGGATTAAATAACCTGGAACAGGGAA
GGTGAAGTGGAGTGGAGATGTCTCCATATCTATACCTTGTGCACAGTGAATGGGAACGTGTTGGGTT
AGGGCATCTTAGAGTTGATTGATGGAAAAAGCAGACAGGAACCTGGTGGGAGGTCAAGTGGGAAGTTGG
GAATGTGGAATAACTTACCTTGTGCTCCACTAAACCAGATGTGTTGCAGCTTCTGACATGCAAGGATC
TACCTTAATTCCACACTCTCATTAATAAAATTGAATAAAAGGGATGTTGGCACCTGATATAATCTGCCAGG
CTATGTGACAGTAGGAAGGAATGGTTCCCTAACAGCCCAATGCACTGGTGTGACTTTATAAATTATTA
ATAAAATGAACATTATTC

11785.2. contig

GGCAGTGACATTACCATCATGGGAACCACCTTCCCTTCTCAGGATTCTGTAGTGGAAAGAGAGCAC
CCAGTGTTGGCTGAAAACATCTGAAAGTAGGGAGAACCTAAATAATCAGTATCTCAGAGGGCTCTA
AGGTGCCAAGAACAGTCTCACTGGACATTAAAGTGCCAACAAAGGCATACTTCGGAATGCCAAGTC
TTCTAACTTCTGTCTCTCAGAGACAAGTGAGACTCAAGAGTCTACTGCTTAGTGGCAACTACAGAAA
CTGGTGTACCCAGAAAAACAGGAGCAATTAGAAATGGTCCAATTCAAGCTCCGCAAACAGGATGTG
CTTCCCTTGCCCATTAGGGTTCTCTTCTCTTCTTTATTAAACCACT

Fig. 1F

11718-1&2 cons

TGCGCTGAAAACAACGGCCTCTTACTGTTAAATGCAGCCACAGGTGCTTAGCCGTGGGCATCTCAACC
ACCAGCCTCTGTGGGGGCAGGTGGCGTCCCTGTGGCCTCTGGGCCACGTCCAGCCTCTGTCCTCT
GCCTTCCGTTCTCGACAGTGTCCCAGGCATCCCTGGTACCTGGTACTTGGCTGGGCCCTGTGCTGC
TCCAGCAGCTCCTCCAGGXGGTCGGCCGCTTACCGCAGCCTCATGTTGTGTCGGAGGGCTGCTCACGG
CCTCCTCCTTCCTCGCGAGGGCTGTCTCACCCCTCCGGXGCACCTCCTCCAGCTCCAGCTGCTGGCGGGC
CTGCAGCGTGGCCAGCTCGGCCTGGCTGCCCGTCTCCTCCTCARAGGCTGCCAGCCGGTCTCGAA
CTCCTGGCGGATCACCTGGGCCAGGTTGCTGCGCTCGCTAGAAAGCTGCTCGTTACCCGCTGCGCATCC
TCCAGCGCCGCTCCTCTGCCGACAAGGCCCTGCAGACGCAGATTCTCGCCCTCGGcTCCCCAAGCT
GGCCCTCAGCTCCGAGCACCGCTCTGAAGCTTCCGACTGCTCCAGCTCGGAGAGCTCGGCCTC
GTACTTGTCCCAGCGCTTAAGCGCTTGATGCGGCTCTGGCAGCCTCTCACTCTCCCTGGCCAGGCCATGT
CGGCCTCCAGCCGGTGAATGACCAGCTCAATCTCCTGTCCCGCCTTCCGGATTCTCCCTCAGCTCC
TGTCCCCGGTCAAGCAGCCACGCCCTCCCTGGTGCAGGCCCTCCACGCCCTGCCCTCCAGCT
CCAGCTGCTGCTCAGGGTATTAGCTCCATCTGGCGGGCCTGCAGCGTGGCCA

13690.4

CAACTTATTACTGAAATTATAATAGCCTGTCGTTGCTGTTCCAGGCTGTGATATATTTCTAGTGG
TTGACTTTAAAATAAGGTTAATTTCTCCCC

13693.1

TGCAAGTCACGGGAGTTATTTAATTTCATTTTCCCCAGATGGAGACTCTGTCGCCAGGCTGGAGTGCA
ATGGTGTGATCTTGGCTCACTGCAACCTCCACCTCCTGGTTCAAGCGATTCTCCTGCCACAGCCTCCGA
GTAGCTGGATTACAGGTGCCGCCACACACCCAGCTAATTTTATTTAGTAAAGACAGGGTTCCC
CATGTTGCCAGGCTGGCTTGAACTTCTGACCTCAGGTGATCCACCTGCCTGGCCTCCAAAGTGTGG
GATTACAGCGTGAGCTACCCGTGCCAGCCACTGGAGTTAAAGGACAGTCATGTTGGCTCCAGC
CTAAGGCGGCATTTCCCCCATCAGAAAGCCCGGGCTCTGTACCTCAAAATAGGGCACCTGTAAAGTCA
GTCAGTGAAGTCTCTGCTCTAACTGGCCACCCGGGGCATTGGCNTCTGACACAGCCTGCCAGGANGCC
TGCATCTGCAAAAGAAAAGTTCACTTCCCTTCG

13694.1

CAGAGAATCTKAGAAAGATGTCGCGTTCTTTAATGAATGAGAGAAGCCCATTGTATCCCTGAATCATTG
AGAAAAGGCGGCGGTGGCGACAGCGGCACCTAGGGATCGATCTGGAGGGACTGGGGAGCGTGCAGA
GACCTCTAGCTCGAGCGCGAGGGACCTCCCGCCGGATGCCCTGGGAGCAGATGGACCTACTGGAAAGT
CAGTTGGATTCAAGATTCTCTCAGCAAGATACTCCTGCCTGATAATTGAAGATTCTCAGCCTGAAAGCCAG
GTTCTAGAGGATGATTCTGGTCTCACTTCAGTATGCTATCTGACACCTTCTTAATCTCAGACGCACAAA
GAAAATCCTGTGTTGGATGTTGNGTCCAATCCTGAACAAACAGCTGGAGAAGAACGAGGAGACCGGTAAT
AGTGGGTTCAATGAACATTGAAAGAAAACCAGGGTGCAGACCCCTG

Fig. 1G

13694.2

GAATGTCTGAACAAGGGACCTCTGACCAAGAGAGCTGCAGGAGATGCAGAGTGGTGGCAGGAGTGGAAAG
CAAAGAACACCCACCTCCTCCCTGAAGGAGTAGAGCAACCCTCAGGCTCTGGTACTCTGAATCTGCAGTCACCTTCCATAA
CAAACAAGTCTCCTGAGTTGACAAAACCTCAGGCTCTGGTACTCTGAATCTGCAGTCACCTTCCATAA
GTTCTGTGCAGACAACTGTTCTTGCTCTTACAAACATGTACATCCTACTGGGCTGTGTCACAGGGA
CTGACCTTGCAAGGTGGATTGCTCTTACAAACATGTACATCCTACTGGGCTGTGTCACAGGGA
TGTCTTGCTGGACTGTTCTGCTATGGGATATCTCGTTGGACTGTTCTCATGCTTAATTGCAGTATTAG
CATCCACATCAGACAGCCTGGTATAACCAGAGTTGGTGGTACTGATTGTAGCTGCTTTGTCCACTTCAT
ATGGCACAAGTATTTCTCAACATCCTGGCTCTGGGAAG

13695.1

GAAATGTATTTAATCATTCTCTGAACGATCAGAACTCTRAAATCAGTTCTATAACARCATGTAATACAG
TCACCGTGGCTCCAAGGTCCAGGAAGGCAGTGGTAACACATGAAGAGTGTGGAAAGGGGGCTGGAAACA
AAGTATTCTTTCCTCAAAGCTTCATTCTCAAGGCCTCAATTCAAGCAGTCATTGTCTTGCTTCAAAG
TCTGTGTGCTTCATGGAAGGTATATGTTGTTGCCTTAATTGAATTGTGGCCAGGAAGGGTCTGGAGAT
CTAAATTCAAGTAAGAAAACCTGAGCTAGAACTCAGGCATTCTCTTACAGAACTTGGCTGCAGGGTAGA
ATGAANGGAAAGAAACTAGAACGCTAACAGCTGAAGATAATCCCACAGGCATTCCATAGGCCTTGCA
ACTCTGTTACTGAGAGATGTTATCCTG

13695.2

AGTCTGGAGTGAGCAAACAAGAGCAAGAAACAARRAGAAGGCCAAAGCAGAAGGCTCCAATATGAAACAAGA
TAAATCTATCTTCAAAGACATATTAGAAGTTGGAAAATAATTGATGTGAACTAGACAAGTGTGTTAAGAGTG
ATAAGTAAATGCACGTGGAGACAAGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGTCACCTGGG
GAGTGAGAGGACAGGATAGTGCATGTTCTGCTCTGAATTAGTTATATGCTGTAATGTTGCTCTGA
GGAAGCCCCTGGAAAGTCTATCCACATATCCACATCTTATATTCCACAAATTAGCTGTAATGTTGCTCTGA
TAAGACGCTGCTAATTGACTGCCACTCGCAACTCAGGGGGCTGCATTAGTTAGTAATGGGCAAATGATT
CACTTTTATGATGCTCCCAAGGTGCCTGGCTCTCTTCCAACTGACAAATGCCAAGTTGAGAAAAT
GATCATAATTAGCATAACCGAGCAATGGCGACCCC

13697.1

TAGCTGTCTCCTCACTCTTATGGCAATGACCCCATATCTTAATGGATTAAGATAATGAAAGTGTATTCTTA
CACTCTGTATCTATCACCAAGCTGAGGTGATAGCCCGCTGTCATTGTCATCCATATTCTGGGACTCAGG
CGGGAACTTCTGGAATTGCCAGGGAGCATGGCAGAGGGGCACAGTGCATTCTGGGGAAATGCACATT
GGCTCAGCCTGGTAATGAGTGTATACATTACCTCTGTCACAACCTCATTGCCAGCACCAGTCACAAGG
CCCCACCAAATACCAGAGCCCAAGAAATGTAGTCTGTTGATATGGTTTGCTGTGCCCCAACCCAAATCTC
ATCTGAATTGTAAGCTCCATAATTCCATGTGTTGGAGGGACCTGGTG

Fig. 1H

13697.2

ATCATGAGGATGTTACCAAGGGATGGTACTAACCACTTGTATTCGCTGTTTACACTGCTTGAAGATA
CTACCTGAGACTGGGTAAATTATAACAAAAGAGATTAACTGACTCACAGTCTGCATGGCTGAAGAGGCC
TCAGGAAACTACAGTCATGGTGGAAAGGCAAAGGAGGAGCAAGGCATGTCTTACATGTCAGTAGGAGAGA
GAGCGAGAGCAGGAGAACCTGCCACTTATAAACCAATTCACTCATAACTCCCTATCATGAGAAAAACATG
GAGGAAACCACCCCTCATGATCCAATCACCTCCGCCAGGTCCTCCCTCGACACGTGGGGATTATAATTCA
GGATTAGAGGGACACAGAGACAAACCATATCATCATTATGAGAAATCCACCCCTCATAGTCCAATCAGCTCC
TACCAAGGCCACCTCCAACACTGGGGATTGCAATTCAACATGAGATTGGATGGGACACAGATTCAAAC
CATATCATAAC

13699.1&2

CATGGCCTTCTCCTAGAGGCCAGAGGTGCTGCCCTGGCTGGAGTGAAGCTCCAGGCACCTACAGCTT
TCCGTATTTCCGTTGGTCCATGTGAAGAGCTACCACGAGCCCCAGCCTCACAGTGTCCACTCAAGGGC
AGCTTGGTCTCTGTCCCTGCAGAGGCAGGCTGGTGTGACCCCTGGGAACCTGACCCGGAAACAACAGGTG
GCCAGAGTGAAGTGTGGCCTGGCCCTAACCTAGTGTCCGTCTCCTCTCTGGAGGCCAGTCTTGAG
TTAAAGGCATTAAGTGTAGATAACAAGCTCCTTGTGGCTGGAAAAAACACCCCTCTGCTGATAAAGCTCAGG
GGGCACTGAGGAAGCAGAGGCCCTTGGGGTGCCTGAAGAGAGCGTCAGGCCATCAGCTGTG
CCTCTGGTGCCTCCACGTCTGTTCCATCCTCTGGAGCAGCTGCACCTGACTGCCACGCC
GGCAGTGGAGGCACAGGCTCAGGGTGGCCGGCTACCTGGCACCCATGGCTACAAAGTAGAGTTGG
CCCAGTTCCCTCACCTGAGGGGAGCACTCTGACTCCTAACAGTCTCCTGCCATCATCTGGGG
TGGCTGGCTGTCAAGAAAGGCCGGCATGCTTCTAAACACAGCCACAGGAGGCTGTAGGGCATCTTCC
AGGTGGGGAAACAGTCTTAGATAAGTAAGGTGACTTGCCTAACGGCTCCAGCACCCATTGATCTGGAGTC
TCACAGCAGACTGCATGTAACAACACTGGAACCGAAAACATGCCTCAGTATAAA

13703.3

CCAGAACCTCCTCTTGGAGAATGGGGAGGCCTTGGAGACACAGAGGGTTCACCTGGATGACCT
CTAGAGAAATTGCCAAGAACGCCACCTCTGGTCCAACTGCAGACCCACAGCAGTCAGTGGTCAG
GCCCTGCTGTAGAAGGTCACTGGCTCCATTGCCTGCTTCAACCAATGGCAGGAGAGAAGGCCCTTATT
TCTGCCACCCATTCTCCTGTACCAAGCACCTCCGTTTCAGTCAGYGTGTCAGAACGGTACCGTTAC
ACAGTCA

13705.1

TGCATGTAGTTTATTATGTGTTTSGCTGGAAAACCAAGTGTCCCAGCAGCATGACTGAACATCACTCAC
TTCCCCTACTTGTACTACAAGGCCAACGCCAGAGGCCAGACCAGGATTCCAAACACACTGCACGAGAATA
TTGTGGATCCGCTGTCAGGTAAAGTGTCCGTACTGACCCARACGCTTACGTGGCACATGACTGTACAGT
GCCACGTAACGCACTGTACTTTCTCCCATGAACAGTTACCTGCCATGTATCATGATTCAAGAACATT
GAACAGTTAATTCTGACACTTGAATAATCCCATCAAAACCGTAAACACTTGTGTTGTAACGACAACA
TAGCATCACTTACGACAGAACATCTGGAAAAACAGAACACGAATACATACATCTAAAAAATGCTGGGG
TGGGCCAGGCACAGCTTACGCCGTAAATCCAGCACTTGGAGGCTAACGGGTG

13705.2

TGGGGCGGAAAGAACCAAGGCCAAGGAGCTGGTGCAGCTGCAGCTGGAGGCCAGGGAGCAGAGG
AAGCAGAAGAACCGGCAGAGTGTGCGGCCTGCACAGATACCTCACTTGCTGGATGAAATGAAAATT
CCCGTGTCTTGTGGATGCAGACGGTGATGTGATTTCCCTCCACCAATAACCAACAGTGAGAACAAAGG
TTAAGAAAACGACTTCTGATTTGTTTGGAAAGTAACAAGTGCCACCAGTCTGCAGATTGCAAGGATGTCA
TGGATGCCCTCATTCTGAAAATGGCAAGAAATGAAAAAGTACACTTAGAAAATAAGAGGAAGGATCACTC
TCAGATACTGAAGCCGATGCAGTCTGACAACTCCAGATCCCACAACGAATCCCAGTGCTGGAAAGGA
CGGGCCCTCCTCTGGTGGACANGTCCGGTGGATCTTGGAAANGAACCTGAANGTGGTGA
CCCCGTCCAAGGCCGACCTGGCCAC

13707.4

TCCCGCGCTCGCAGGGNCGTGCCACCTGCCYGTCCGCCGCTCGCTCGCTCGCCCCGCCGCCGCCGCG
TGCCGACCGYCAGCATGCTGCCGAGAGTGCGCTGCCGCCGCCGCCGCTGCTG
CCGCTGCTGCCGCTGCTGCTG

13708.1&2

GGCAGGGTAGGCATGGAAGTGGAAAGAACGAAGAACGCTTCACTACGTGGGAAGAATGAAAAACCAA
AATTATCGCCAAGATTCAAGCAAGGGGACAGGGAGCTCCAGCCGAGAGCCTATTATTAGCAGTGAGGAG
CAGAACAGCTGATGCTGACTATCACAGAACAGAGCTCAAGAGATTGGAAAGAAATGATGATGA
TGCTTATTTAAACTCACCATGGCGGATAACACTGCTTGAAAAGACATTTCATGGAGTGAAAGACATAAA
GTGGAGACCAAGATGAAGTCAACCAGCTGATGACACTCCAAAGAGATTAGCTCACCT

13709.1

TCTGAAGGTTAAATGTTCATCTAAATAGGGATAATGRTAAACACCTATAGCATAGAGTTGTTGAGATTAA
TGAGATAATACATGAAAATTATGCGCTGGCATACAGCAAGATTGTTGTTGATGATGATGATG
ATGATAATATTTCTATCCCCAGTGACACTGCTGAACCTATTAGATAATCAATACATGTTCTGAACTG
AGATCAATTCCCCATGTTGACTGATGAAGCCCTACATTCTTAGAGGGAGATGACATTGAGCAA
GATCTAAAGAAAATCAGATGCCTCACCTGACCACTGCTGGTGAATCCATGGCACTTTGATCTCTCC
ATTAGCTCTCATCTCACCAAGCCCATCATTATTGTATGTGCTGCCTCTGAAGCTGAGCTGGCTACCATCM
GGTAGAATAAAATCATCCTTCATAAAATAGTGACCCCTCTTTTATTGCATTCCAAAGCCAAGCACC
GTGGGANGGTAG

Fig. 1J

13709.2

TATGAAGAAGGGAAAAGAAGATAATTGTGAAAGAAAATGGGTCCAGTTACTAGTCCTTGAAAAGGGTCAGTC
TGTAGCTCTTCTTAATGAGAATAGGCAGCTTCAGTTGCTCAGGGTCAGATTCCTTAGTGGTGTATCTAAT
CACAGGAAACATCTGGTCCCTCCAGCTCTTCTGGGGACTTGGGCCACTCTCATTCAATTAAATT
AGAGGAAATAGAACTCAAAGTACAATTACTGTTGTTAACATGCCACAAAGACATGGTGGAGCTATT
CTTGATTGTGAAAATGCTGTTTGTGCTCATATGGTCAAAAATTGGTGCTGCCAAAGAGAGA
TACTGTTACAGAAGCCAGCAAGAAGACCTCTGTTCATTCACACCCCCGGGATATCAGGAATTGACTCCAG
TGTGCAAATCCAGTTGGCCTATCTTCT

13712.1&2

TGAGGGACTGATTGGTTGCTCTCTGCTATTCAATTCCCCAAGGCCACTTGTCCGCAGCGTCCTCCTTCT
CATTCCCTTAGTTGACCTCTCTTCATCTGAGACCTTCCTTGTATGTCGCCTTCTTCTTCTGCTT
TTCTGATGTTCTGCTCAGCATGTTCTGGTGCTTCTCATCTGCATCATTCTTCAGATGCTGTAGCTTCTT
CCTCCTCTTCTGCCTCTTCTTCTTCTTCTGGGGGCTGCTCTGACTGCAGTTGAGGGGCC
CAGGGTCTGGCCTTGGAGACGCCAGGAAGGCCCTGCTCTGGGCCCTAGGCGAGCAAGCTGGCCTT
CATTGTGATCCAAGACGGGCAGCCTGTGCTGCTGTTGCCCCCTCACAGGCTGGAGCAGCATCTCATCAG
TCAGAATCTTGGGGACTGGACCCCTGGTTGCTCATCACTGCAGCTCTCAAGTCTTGTGTTGGCTTCT
CTCCACCTGAAGTCAATGTAGCCATCTCACAAACTCTGATACAGCAAGTTGGCTTGGGATGATTATAAC
GGGTGGTCTCCTAGAAAGGCTCTTATCTGACTCCATCCTGCCAGTTCCACTACCAAGTTGCCGCA
GTCTTGTGAAGAGCTCATTCCACCAAGTGGTTGTGAACTCCTGGCAGGGCATGTCCTACCCATGAGT
GTCTTGCTTCAGYGTACCCCTGAGAGCCTGAGTGTACCATTCCTCCG

13714.1&2

GACAACATGAAATAACCTAGAGGACAAATTAAACTCAATAGAGTGTAGTCAGTTAAAAACTCGAAAAAT
GAGCAAGTCTGGTGGAGTGGAGGAAGGGCTATACTATAATCCAAGTGGCCTCCTGATCTAACAGCC
ATGCTCATTATACACATCTGAACTGGACATACCACCTTACGCAGGAAACAGGGCTTGGAACTCTAAGG
GAAATTAAACATGCACCCACCATCTAACCTACCTGCCGGTAGGTACCATCCCTGCTCGCTGAAATCAG
TGCTC

13716.1&2

TTGGAATTAAATAACCTGGAACAGGGAGGTGAAAGTTGGAGTGAGATGTCTCCATATCTACCTTGT
GCACAGTTGAATGGGAACTGTTGGGTTAGGGCATCTAGAGTTGATTGATGGAAAAGCAGACAGGAAC
TGGTGGGAGGTCAAGTGGGAAGTGGTGAATGTGGAATAACTTACCTTGTGCTCCACTTAAACCAGATG
TGTGCACTTCTGACATGCAAGGATCTACTTAATTCCACACTCTCATTAATAAAATTGAATAAAAGGGAA
TGTTTGGCACCTGATATAATCTGCCAGGCTATGTGACAGTAGGAAGGAATGGTTCCCTAACAGCCAA
TGCACGGTCTGACTTATAAATTATTAATAAAATGAACTATTATC

Fig. 1K

13718.2

AAACTGGACCTGCAACAGGGACATGAATTACTGCARGGTCTGAGCAAGCTCAGCCCCCTACCTCAGGGC
CCCACAGCCATGACTACCTCCCCCAGGAGCGGGAGGGTGAAGGGGGCCTGCTCTGCAAGTGGAGCCAG
AGTGGAGGAATGAGCTCTGAAGACACAGCACCCAGCCTCTCGCACCAGCCAAGCCTTAACTGCTGCCT
GACCCTGAACCAGAACCCAGCTGAACCTCCCCTCCAAGGGACAGGAAGGCTGGGGAGGGAGTTACAA
CCCAAGCCATTCCACCCCCCTCCCCTGCTGGGGAGAATGACACATCAAGCTGCTAACAAATTGGGGAGGG
GAAGGAAGAAAATCTGAAAACAAAATCTTGT

13722.3

CATGCGTTACCACTGTTGCCAGGCTGGTCTGAACTCTGGCCTCAAGCAATCCACCCGCCAGCCT
CCAAAAGTGCTGGGATTACAGATGTGAGCCATGGCACCATGCCAAAAGGCTATATTCTGGCTCTGTGTT
CCGAGACTGCTTTAATCCCAACTTCTCTACATTAGATTAAGGCTAAAGGCACAATTTCATGGTCAATCTGGAACAT
AATTACTGCATCTTAAGTTCCACTGATGTATAGAAGGCTAAAGGCACAATTTCATCAAATCTAGTAGAG
TAACCAAACATAAAATCATTAATTACTTCAACTTAATAACTAATTGACATTCCCTAAAAGAGCTGTTCAAT
CCTGATAGGTCTTATTTCATAAAATATTGCCATGGGATGCTAACATTGCAATAAGGCGATAATGAGA
ATACCCCAAATGGA

13722.4

GTGGACCCCCAGGGACTGAAAGACACTTCTGCCAGCTGTGGCGGGAGAAGCTGATGTTCTTTTA
TTATGCTTCTGGATCCGAATTGATGAGATGTTGTGGGTGGGAGGCCAGCCGTATCAGAAATCTTTTAG
GGAAGCAAAGGCGAATGCTCCTGTGTTATTTATTGATGAATTAGATTCTGTTGGTGGGAGAGAAATTGA
ATCTCAATGCATCCATATTCAAGGCAGACCATAATCAACCTCTGCTGAAATGGATGGTTAAACCCAAAT
GAAGGAGTTATCATAATAGGAGCCACAAACTCCCAGAGGCATTAGATAATGCCCTAACCGTCTGGTCG
TTTGACATGCAAGTTACAGTCCAAGGCCAGATGAAAAGGTCGAACAGAAATTGAAATGGTATCTCAA
TAAAATAAAGTTGATCAATCCCGTTGATCCAGAAATTAGCCTCGAGGTAAGGTGCTTCCGGAAAGC
AGAGTTGGGAGAATCTT

13724-13698-13748

GCCTACAACATCCAGAAAGAGTCTACCCCTGCACCTGGTCTSCGTCTCAGAGGTGGATGCAGATCTTCGT
GAAGACCTGACTGGTAAGACCATCACTCTGAAGTGGAGCCAGTGACACCATYGAGAACGTCAAAGCA
AAGATCCARGACAAGGAAGGCRTYCCTCCTGACCAGCAGAGGTTGATCTTGCCGGAAAGCAGCTGGAAAG
ATGGDCGACCCCTGACTACAACATCCAGAAAGAGTCYACCCCTGCACCTGGTCTCCGTCTCAGAGGT
GGGATGCARATCTCGTGAAGACCCCTGACTGGTAAGACCATCACCCTCGAGGTGGAGGCCAGTGACACCA
TCGAGAATGTCAAGGCAAAGATCCAAGATAAGGAAGGCATCCCTCTGATCAGCAGAGGTTGATCTTGCT
GGGAAACAGCTGGAAGATGGACGCACCCCTGACTACAACATCCAGAAAGAGTCCACTCTGCACTTGGT
CCTCGCTTGAGGGGGGTGCTAAGTTCCCTTTAAGGTTCMACAAATTGCACTTCCCTTCA
ATAAAGTTGTCATTCCC

Fig. 1L

13730.1

GAACCTGGGCCCTGAGCCCAAGTCATGCCCTGTGCCGACATGCCGTGTCACCTCTGKCCCTGCCCTCAC
CCCTCCCTCTGGTCTTGAGCCAGCACCATCTCAAATAGCCTATCCTCCTGCAAATCACACACACAT
GCGGGCCACACATACCTGCTGCCCTGGAGATGGGAAGTAGGAGAGATGAATAGAGGCCATACATTGTA
CAGAAGGAGGGGCAGGTGCAGATAAAAGCAGCAGACCCAGCGGAGCTGAGGTGCATGGAGCACGGTTG
GGGCCGGCATTGGCTGAGCACCTGATGGCCTCATCTGTGAATCCTCGAGGCAGGCCACAGCAGAG
GAGTTAAGTGGCACCTGGCCAGCAGAGCAGGAGACTGAGGGTCAGAGTGGAGGCTAAGCTGCCCTGG
AACTCCTCAATCTGCCTGCCCTAGTATGAAGCCCCCTTCCTGCCCTACAATTCTGA

13732.1

ATGGATCTTACTTGCCACCCAGGTTGGAGTCAGTGCAATCTGGCTCACTGCAGCCTAACCTCCC
AGGCTCAAGCTATCCTCCTGCCAAAGCCTTCCACATAGCTGGACTACAGGTACACNGCCACCACACCCAG
CTAAAATTTGTATTTGTAGAGACGGATCTGCCACGTTGCCAGGCTGGTCCCACCTGACCTCAA
GCAGATCTGCCACCTCAGCCCCAACGTGCTAGGATTACAGGCGTGGCCACCGCACCCAGCCTTGT
TTGCTTTAATGGAATCACCAAGTCCCCCTCCGTGTCAGCAGCAGCTGTGAGAAATGCTTGATCTGTG
ACCTTATGAAGGGAACTTCCATGCTGAATGAGGGTAGGATTACATGCTCCTGTTCCGGGGTCAAGA
AAGCCTCAGACTCCAGCATGATAAGCAGGGTGAG

13732.2

ATAGGGGCTTAAGGAGGGATTCAAGGTTCAATGAGGTCGAAGGCCAGGGCTTATCCAGTAAGACTGG
GGTCCTTAGATGAGAAAGAGACACCCGAGGTCTCTCTGCCGTGAGGATGCATCAAGAAGGCGGC
CGTCTGCAAGCGAAGGGAGAGGCCGACCCAGAAACCGACACCTTCACTTGGACTTGCAAGCCTCTAGAACT
GAGAAAATACTGTCTGGTTAAGCCACCCAGTTGTAGTATTCTTATGGCTTCAAGCAGACTAAC
AAACAAACACCCAAAATTAACTGATGGCTCGCTCTGTAAAAATTGCTATGAGAGAACTTTCACTCA
CTGTTGCAGTTCTCCCTCAGTCCCTGGTTCTTCTCACATAATCCAATTCAATTAGTTCATGG
CCCAGGCAGAGTCATTCAACGGCATCCTGAGCTAAACCAGCACCTGCTGTCACCTTGTGACTGG
CTGCTCATCATCAGCCCTTGCAGAGATTCAATTCCCTCCGTGCCAGGTACTCACGCACCAAGCTCA

Fig. 1M

13735.1

GGATAATGAAGTTGTTTATTAGCTGGACAAAAGGCATATTCTCTATTTCTTATACAACAAATATCCCC
AAAATAAAGCAAGCATATATATCTGAATGTGAATAATCCAGTGATAAACAGAGCAGTACTTAAAAGAAA
AAAAAAATATGTATTCTGTCAAGGTTAAATGAGAATCAAACCACTCTGCTAACTCATTATTTTGCTT
TCTTTGTTAAGAGAGGCAATGCAATACACTGAAAAGGTTTATCTTATCTGGCATTGGAATTAGACAT
ATTCAAACCCCAGCCCCATTCCAAACTTAAGACCACAAACAAGTAATTACTTCTGAACATTGGTTT
TTCTGGAAAATGGAATTATAAAAGACTTGCAGACTCTATGAGATTAAATAAGATAATGTATGAAATTCT
TTCTCTTTTACTCTTTCTTTGAGATGGAGTCACCCGTCACCCAGGCTGGAGTACAGTG

13735.2

CCACTGCACTCCAGCCTGGGTGACGGAGTGAGACTCTGTCTCAAAAAACAAACAAACAAACAAAAAA
ACTGAAAAGGAAATAGAGTCCCTTCTCATATATGAATATATTATTCAACAGATTGTGATCACCTACCA
TATGCTTGGTATTGTTCAATTGCTGGGATACAGCAAGAGGTTCTGCAGAACCTCATGGAGCATGAAAGTA
AATAAACAAAGTTAATTCAAGGCCAGGCATGGTCTCACACCTTAGTCCAGCACTTGGGAGGCTGA
GGCAGGTGGATCACTGGGCCAGGAGTTCAAGGCTGCAGTGAGCCAAGATTGTGCCACTACTCTCCAGG
CTGGCAACAGAGCAAGACCCGTCTCAGGGGGACAAAAAGTTAATTCAAGATTTGTTAAGTGCTGTAAA
GGAAGTAAATAGGTTGATATTCAAGAGAGCACCTGAAGGCCAGGCGTGGCTACGCCGTGGTCTAA
CGCTTGGGAAGCCGAGCGGGCGATCACAAGGTCAAGGAGAATTGGCCAGGAGTGGT

13736.1

AGAATCCATTATTGGGTTTAAACTAGTTACACAACGTAAATCAGTTGGCACTACTTATACAGGGATTAC
GCCTGTGTATGCCGACACTTAAATACTGTACCAGGACCACTGCTGTGCTTAGGTCTGTATTCAAGTCATTCA
CATGTAGATACTAAAATATACTGTAGTGTCCCTTAAGGAAGACTGTACAGGGTGTGCAAGATGACAT
TCACCAATTGTGAATTATTCAACCCAGAAGATAACCTTCACTCTATAAAACTGTCAAGGAAACATGTGG
TGTTAGCATTGAGAGATGCACACAAAATGTTACATAAAAGTTCAAGACATTCTAATGATAAGTGAACGTGAAA
AAAAAAAACCCCACATCTAATTGTAACAAGATAAAGAAAATAATTAAAAACACAAAAATGGCATTCA
GTGGTACAAAGCC

13737.1&2

CAAATTTAATATAATCTTGAAACAAGTTCAAGAKGAAATAAAATCAAAGTTGAAAAACGTGAAGATTA
ACTTAATTGTCAAATATTCTCATTGCCCAAATCAGTATTCTTATTCTATGCAAAAGTATGCCTTCAAA
CTGCTTAAATGATATGATACACAAACAGTTCAAATAGTAAAGGCCAGTCATTGCAATTGTAA
GAAATAGGTTAAAGATTATAAGACACCTTACACACACACACACACACACACACGTGTGCACCGCCAAAT
GACAAAAAAACATTTGGCCTCTCTAAATAAGAACATGAAGACCCCTTAATTGCTGCCAGGAGGGAAACACTG
TGTACCCCTCCCTACAATCCAGGTAGTTCTTAATCCAATAGCAAATCTGGCATATTGAGAGGAGTG
ATTCTGACAGCCACSGTTGAAATCCTGTGGGAACCATTCACTGTCCACCCACTGGTGCCTGAAAAAAATGC
CAATAATTTCGCTCCACTCTGCTGCTGTCTTCCACATCCTCACATAGACCCAGACCCGCTGGCCC
CTGGCTGGGCATCGCATTGCTGGTAGAGCAAGTCATAGGTCTCGTCTTGACGTACAGAAGCGATACACC
AAATTGCCTGGTCGGTCATTGTCATAACCAAG

Fig. 1N

13738.1

TTTGACTTAGGGGCTGAACATTACTTGCCMGTAAATTARACCYTATATCTTCATTA
TGCCATCTTATCTCTAATGBCAAGGGAACAGWTGCTAAMCTGGCTCTGCATTWATCACATTAAAATGGC
TTCTGGAAAATCTCTTGATATGAATAAAGGATCTTAVGCCATATTAAAGCMGGNTCTCCAAC
ACGAGTCTGCTSASGGGGGGKGAGCTGTGAACTCTGGCTGAAGGCTTCCACACACTGCAATGACMT
GGTTCTGACCAGBGTGAGTTA

13738.2

AGAGAAGCCCCATAATGCAATCAGTGTGGGAAGGCCTTCAGTCAGAGCTCAAGCCTTCCTCCATCATC
GGGTTCATACTGGAGAGAAACCCATGTATGTAATGAATGCGGCAGAGCCTTGGTTAACTCTCATCTTA
CTGAACACGTAAGGATTCACACAGGAGAAAAACCCATGTTGTAATGAGTGCAGCAAAGCCTTCGTCGG
AGTCCACTCTGTTAGCATCGAAGAGTTCACACTGGGGAGAAGCCTACCACTGCGTTGAATGGGAA
AGCTTCAGCCAGAGCTCCAGCTCACCTACATCAGCCAGTTCACACTGGAGAGAAGCCTATGACTGT
GGTACTGTGGGAAGGCCTTCAGCCGGAGGTCAACCCTCATTAGCATCAGAAAGTTCACAGCAGGAGAGA
CTCGTAAGTGCAGAAAACATGGTCCAGCCTTGTTCATGGCTCCAGCCTCACAGCAGATGGACAGATTCCC
ACTGGAGAGAACGGCAGAACCTTAACCAGGTCAAATCTCATTCTGCCGGACAGTT

13739.1&2

GAGACAGGGTCTCACTTGTCACCCAGGCTGGAATGCAGTGGTGCAGTCTACGTAGCTCACTGCAGCCCT
GACCTCCTGGACTCAAACAATTCTCCTGCCTCAGCCCTGCAAGTAGCTGGACTGTGGTGCATGCCACCA
TGCCTGGCTAACTTTGTAGTTTGTAAGATGGGTTTGCATGTCACATGCTGGTCTGAACCT
GAGCTCAAACGATCTGCCAACCTCGGCCCTCCAGAATGTTGGGATTACAGGGTAAACCACCCAGCCTGG
CCCCATTAGGGTATTCTTAGCATCCACTGCTACTGAGATTACATAAGAGATGATAAGCACTGGAAGAA
AAAAATTAACTAGGGTTGGATATTTTCTTTTCAAGCTTACAGAGGATTGGATCTTAGTTCT
TTAAGTATAAAACATTGAAAGGAAATAAGTTACCTGAGATTACAGAGATAACCAGGCATCACTCCCT
GCTCAATTCCAGTCTTACACATCAATTATTTCAAGGGTCAGGATAAAGGCTTAGTCTGCTTCGCA
CTTTTCTTCACCTTTGTAAACCTGTTGCCTGACAATGGAATTGACAGCGTATGCCATGACTATTCCAT
TTGTCAGGCATACGCTGTCAATTCCACCAATCCCTGCTCTTGGAGAGATCTCTTATCAGCTAGT
CCTTGGCAAAAGTAATTGCAACTCTTAGGTATTCTATTGTCCGTTCACTGGTGGAACCCCTGGGACC
AGGACTAAAACCTCCAG

13741.1

ATCTCATATATATATTCTCCTGACTTTATTGCTGCTTCTGNCACGCATTAAAATATCACAGAGACCAAA
ATAGAGCGGCTTCTGGTGGAACGCATGGCAGTCACAGGACAAATACAAACTAGGGGGCTGTCTTCT
CATACATCATACAATTTCAGTATTGTTATGACAAAGAGACTACTCTATGAAAAAAATTAAAAAATAA
ATGAGACAAGATAGTTATGCATCCTAGGAAGAAGAATGGGAAGAAGAACGGGGCAGTGGGTACAGAT
TCCTGCCCCCTGTTCCCAGGGACCACTACCTCCTGCCACTGAGTCCCCCACAGCCTACCCATCATGTC
ACAGGGCAAGTGCCAGGGTAGGTGGGGACCACTGGAGACAGGAACCAGCAACATACTTGGCCTGGAG
ATAAGGAGAAAGTCTCAGAAACACACTGGTGGGAAGCAATCCCACNGGCCGTGCCCCANGAGCTCCCAC
CTGCTGCTGGCTCCCTGGGTGGCTTGGGAACAGCTTGGCAGGCCCTTGGTGGGNCAACTGGG
CTTTGGGCCGTGGAAAG

13742.1

AAACATTGAGATGGAATGATAGGGTTCCCAGAACATCAGGCCATATTTAACTAAATGAAAATTATGATTAT
AGCCTTCTCAAATACCTGCCATACTGATATCTAACCCAGAGCTAATTTACCTCTTACAAATTAAATAAGC
AAGTAACCTGGATCCACAATTATAATACCTGTCAATTTTCTGTATTAAACCTCTATCATAGTTAACGCTAT
TAGGGTACTTAATCCTACAAATAACAGGTTAAACACCTCAATAGGCAACTGCCCTCTGGTTTCTTC
TTGACTAAACAATCTGAATGCTTAAGATTTCCACTTGGGTGCTAGCAGTACACAGTGTACACTCTGTAT
TCCAGACTCTTAAATTATAGAAAAAGGAATGTACACTTTGTATTCTTGAGCAGGGCCGGAGGCAA
CATCATCTACCATGGTAGGGACTTGTATGCATGGACTACTTA

14351.1

ACTCTGTCGCCAGGCTGGAGCCCABTGGMGCATCTGACTCCCTGCAAGCTMCGCCTCACAGGWTCA
TGCCATTCTCCTGCCTCAGCATCTGGAGTAGCTGGACTACAGGCAGCCACCATGCCAGCTAATTT
T

14351.2

ACCTAAAGACATAGGAGAATTATACTGGGAGAGAAAGCTTACAAATGTAAGGTTCTGACAAGACTGGG
AGTGATTCACACCTGGAACAAACATACTGGACTTCACACTGGABAGAAACCTTACAAGTGTAAATGAGTGTGGC
AAAGCCTTGGCAAGCAGTCAACACTTATTACCATCAGGCAATTCA

14354.2

AGTCAGGATCATGATGGCTCAGTTCCCACAGCGATGAATGGAGGGCAAATATGTGGGCTATTACATCTG
AAGAACGTACTAACGATGATAAACAGTTGATAACCTCAAACCTTCAGGAGGTTACATAACAGGTGATCAAG
CCCGTACTTTCTACAGTCAGGCTGCCGGCCCGGTTAGCTGAAATATGGGCCTATCAGATCTGA
ACAAGGATGGGAAGATGGACCAGCAAGAGTTCTATAGCTATGAAACTCATCAAGTTAAAGTTGCAGGGC
CAACAGCTGCCGTAGTCCTCCCTCATGAAACAACCCCTATGTTCTCCACTAATCTGCTCGT
TTGGGATGGGAAGCATGCCAATCTGCCATTGAGCATTGCCAGTTGCACCTATAGCAACACC
CTTGTCTTGTACTCAGGGACCAAGTATTCCCTCCATAATGATGCCTGCT

14354.1

CTTCGATTCCTCAATTGTCACGTTGATTTATGAAGTTGTTCAAGGGCTAACTGCTGTATTAGCT
TTCTCTGAGTTCTTCAGCTGATTGTTAAATGAATCCATTCTGAGAGCTTAGATGCAGTTCTTTCAAGA
GCATCTAATTGTTCTTAAGTCTTGGCATAATTCTCCTTCTGATGACTTCTATGAAGTAAACTGATCCC
TGAATCAGGTGTGTTACTGAGCTGCATGTTTAATTCTTGTAAAGCTGCTCTCAGGGACCAAGATAG
ATAAGCTTATTTGATATTCTTAAGCTCTGGTGAAGTTGTCATTCCATAATTCCAGGTACACTGGT
TATCCCAAACCTCT

16431.1.2

TGGAGGTGAAACGGAGGCAAGAAAGGGGGTACCTCAGGAGCGAGGGACAAAGGGGGCGTGAGGCACC
TAGGCCGCGCACCCCGCGACAGGAAGCCGTCTGAACCGGGCTACCGGGTAGGGGAAGGGCCCGCG
TAGTCCTCGCAGGGCCCCAGAGCTGGAGTCGGCTCCACAGCCCCGGCGTCGGCTTCTCACTTCCTGG
ACCTCCCCGGCGCCCGGCCTGAGGACTGGCTCGCGGAGGGAGAAGAGGAAACAGACTTGAGCAGCTC
CCCCTTGTCTCGCAACTCCACTGCCGAGGAACTCTCATTTCTCCCTCGCTCCTCACCCCCCACCTCATGT
AGAAAGGTGCTGAAGCGTCCGGAGGGAGAAGAACCTGGCTACCGTCTGCCCTCCMCCCCCTCC
CGGGCGCTTGGTGGCGTGGAGTTGGGTTGGGGGGTGGGTGGGGTTCTTTGGAGTGCTGGG
GAACTTTTCCCTCTTCAGGTCAAGGGAAAGGAAATGCCAATTAGAGAGACATGGGGCAAGAAGGA
CGGGAGTGGAGGAGCTCTGGAACTTGCAGCGTCACTGGAGGGCAGCTAACACAGCAGAGAGCG
TCACCGCTTGGTATCGAAGCACAAGCGCATAAGTCAAACACTCCAAAGACATGGGGTTGGTACCCCC
GAAGCAGCATCCCTGGGCACAGTTATCAAACCTTGGTGGAGTATGATGATATCAGCTCTGATTCCGACAC
CTTCTCCGATGACATGGCCTCAAACAGACCGAAGGGAGAACGACGAACGTCGTGGATCAGATCGGAGC
GACCGCCTGCACAAACATCGTACCAACCAGCACAGCGTCCCGGACTTACTAAAGCTAACAGACCG

16432-1

GACATGTTGCCTGCAGGGGACCAGAGACAATGGGATTAGCCAGTGCTCACTGTTCTTATGCTTCCAGAG
AGGATGGGGACAGCTCTCAGGTCAAGAATCCAGGCTGAGAAGGCCATGCTGGTGGGGCCCCCGGAAGC
ACGGTCCGGATCCTCCCTGGCATCAGCGTAGACCCGCTGCTCAGGCTGGGTACCAAACATGCTCTG
TACTGTTTGGCCCCATGCGGTGAGAGGAAAACCTAGAAAAAGATTGGTCGTGCTAAGGAATCAGCTGCC
CCTCATCCTCCGCATCCAATGCTGGTACAACATATTCCCTCTCCAGGACACAGACTCGGTGACTCCACA
CTGGGCTGAGTGGCCTCTGGAGGCTCGTGGCTAAGGCAGGGCTCCGAAGGCTGATCGGCTGAACCTGG
GTGGGTGAGGGTTCTGACCCCTCGCTTCCATCCCATAACCGCTGTCAATGAGCTCACACTGTGGTCA

16432-2

GATGGCATGGTCGTTGCTAATGTGCCTGCTGGGATGGAGCACTTCCCTGTGAGGCCAGGGACCCGCC
TGTCCCTGGAGCTTGGGCAAGGAGGGAAAGAGTGTACCAAGGAAGGTGGGCTGCAGCCAGGGGCCAGA
GTCAGTTCAAGGAGTGGCTCTGGCCCTCAAAGCTCTCCGGGACTGCTCAGGAGTGATGGTGCCTGG
AGTTTCTCCAGGACACAAGTATCATTAAAGCCACCCCTCCTCAGCTGTGAGGCCGACATGTGGGACAG
GCTGTGCTCACAACCCCTCGCTGCCCTGCCCTCCATCAGGAGGAGCCAGTGGAACCTCGGAAAGCTC
CCAGCATCTCAGCAGCCCTCAAAGTCGCTTGGGCAAGCTGGTCTCCTGACTGGAGGTGATCTGG
GCTGGCCTGCTCTCTCGC

17184.3

TAAAAAAAGTGTAAACAAAGGTTATTTAGACTTCTCATGCCCTCAGATCCAGGATGTCTATGTAACCGTTA
TCTTACAAAGAAAGCACAATATTGGTATAAACTAAGTCAGTGACTGCTTAAGTAAATAGCGTCCATCAA
AAGTGGGTTAAGGTAAAACCTACCTGACGATATTGGCGGGGATCCTGCAGTTGGACTGCTTGGGGTT
GTCCAGGGTCCGGGCTGTTCTGGCACTCATGGGGACAGGCATCCTGCTCGTCTGTGGGGCCCCGCTG
GAGCCCTACGTGAAGCTGAAGGTATGACCSTAGGGGCTCTAGGGCAGTGGGACCTTCATCCGGAAC
AACAAAGGGTGGGGAGAGGCCTTGGCTATGTGGG

17184.4

CAAGCGTCTTATGGATGAAATTCAAACAGTCATGCTGAGCCATCCGGGCTGACAGTCACGTTAAG
ACACTAGGTGGCGCCACAGTGCCACCAAGGAGAAGAAGAATTGGAATTTCCATGAAGATGTACGG
AAATCTGATGTTGAATATGAAATGGCCCCAAATGGAATTCCAAAAGGTTACCCACAGGGGCTGTAAGACCT
AGTGACCCCTCTAAGTGGAAAGAGGAATGGAGAATAGTATTCTGATGCATCAAGAACATCAGAATATAAA
ACTGAGATCATAATGAAGGAAATTCCATATCCAATATGAGTTACTCAGAGACAGTAGAAACTATCCCAG
G

17185.1

TAGGAATAACAAATGTTATTAGAAATGGATAAGTAATACATAATCACCCCTCATCTCTTAATGCCCTTCC
TCTCCTTCTGCACAGGAGACACAGATGGTAACATAGAGGCATGGGAAGTGGAGGAGGACACAGGACTAG
CCCACCACTTCTCTTCCCCTGGCTCCCAAGATGACTGCTTATAGAGTGGAGGAGGAAACAGGTCCCTCA
ATGTACCAAGATGGTACCTATAGCACCAGCTCCAGATGCCACGTGGTGCAGCTGGACTCAATGAAACTC
TGTGACAACCAAGAAGATACTGCTTGGGATGAGAGGGAGGATAAACCCATGCAGGGAGGATATTACCAT
CCCTACCTAAGCACAGTGCAAGCAGTGAGCCCCGGCTCCAGTACCTGAAAAACCAAGGCCTACTGNC
TTTGGATGCTCTTGGCCACG

17188.2

AAGCCTCTGCCCTGAAATCTGGAGCCCTGGAGCTGAGCTGGACGGGAGGGCTGAGAGG
CAAGACCGTCTCCCTCTGCTGCAGCTGCTCCCCAGCAGCCACTGCTGGCACAGCAGAACGCCAGCA
GAGAAAATGGGAGCCGAGAGTCTTAGCCCTGGAGCTGAGGCTGCCTCTGGCTGACCGCTGGCTGA
CGTGGCCAGAACTGGGTTGGCATCTGGCATCCATTGAGGCCAGGGTGGAGGAAAGGGAGGCAACAG
AGGAAAACCTATTCTGCTGTGACAACACAGCCCTGTCCACGCAGCCTAAGTGCAGGGAGCGTGATGAA
GTCAGGCAGCCAGTCGGGGAGGACGAGGTAACTCAGCAGCAATGTCACCTGTAGCCTATGCGCTCAATG
GCCCGGAGGGGCAGCAACCCCCCGCACAGTCAGCCAACAGCAGTGCCTCTGCAGGCACCAAGAGAGCG
ATGATGGACTTGAGCGCCGTGTC

17190.1

TTTGGCAGAAGACATGTTAATAAACATTCTATTTAAAAAATACAGCAACAATTCTCTATGTCCACCAT
CTTGCCTTGCCTTCTGGGCTGAGGCAGACAAAGGAAAGGTAATGAGGTTAGGGCCCCAGGGGGCT
AAGTGCTATTGGCCTGCTCTGCTCAAAGAGAGGCCATAGCCAGCTGGCACGGCCCCCTAGCCCCTCCAG
GTTGCTGAGGCAGCGGTGGTAGAGTTCTTCACTGAGCCGTGGCTGCAGTCTCGCAGGGAGAACCTC
TGCACCAGCCCTGGCTACGGCCGAAAGAGGTGGAGCCCTGAGAACCGGAGGAAACATCCATCACCT
CCAGCCCCCTCAGGGCTTCTCTTCTGGCTGCCAGTTACCTGCCAGCCGGCTGGGCC
GGTAGTCAGCGTTGAGAAGCAGCCCTCCGCAGAACGCTGCCGGTCAAATCTCCCCGCTATAGGAGCCCC
CCGGGAGGGGTAGCACC

Fig. 1R

17190.2

CAAGTTAACGTCAGGCTTGGCAGAGGTGGAGTAGATGAAAACAAAGGTGTGATTATGAAGAGGATGTG
AGTCCTTGGGTGAGGAGAGAAAGGCTGTTGAGCTTCTATTCAAGATACTTTACCTGTGCAAAAGCAC
ATTTCCACCTCCTCTCATGGCATTGTGTAAGGTGAGTATGATTCCATTCCATCTGCATTAGAGGTGA
AGAATAACGTACAAGGGATTCACTGATTAGCAAGGGACCCCTCACTAAGTGTGATGGAGTTAGGACAGAG
CTCAGCTGTTGAATCTCAGAGCCCAGGCAGCTGGAGCTGGTAGGATCCTGGAGCTGGCACTAATGTGA
GGTGCATTCCCTCCAACCCAGGCTCAGATCCGGAACCTGACCGTGCTGACCCCCGAAGGGAGGCAGGG
CTGAGCTGGCCGTTGGCTCCCTGCTCCTTCACACCACACTTCGCTTGAGGTGCTGGCTGGACT
ACTTCACAGAGCAGC

17191.2&89.2

TGGCCTGGGCAGGATTGGGAGAGAGGATGCTACCCGGATGCAGTCCTTGGATGAAGACTATAGGGTAT
GACCCCATATTCCCCAGAGGTCTGGCCTCCTTGGTGTTCAGCAGCTGCCCTGGAGGAGATCTGGC
CTCTCTGTGATTCATCACTGTGCACACTCCTCTGCCCTCACGACAGGCTTGCTGAATGACAACACCT
TTGCCAGTGAAGAAGGGGGTGCAGTGTGGTGAAGTGTGCCCGTGGAGGGATCGTGGACGAAGGCGCCC
TGCTCCGGGCCCTGCAGTCTGCCAGTGTGCCGGGCTGCACTGGACGTGTTACGGAAGAGCCGCCAC
GGGACCGGGCCTGGTGGACCATGAGAATGTCACTAGCTGCCACCTGGTGCCAGCACCAAGGAGG
CTCAGAGGCCGCTGTGGGAGGAAATTGCTGTTCACTGGTGAAGGGAAATCTCACGGG
GGTTGTGAATGCCAGGCCCTT

Fig. 1S

AGCCAGATGGCTGAGAGCTGCAAGAAGAAGTCAGGATCATGATGGCTCAGTTCCCACAGCGATGAATGG
AGGGCCAAATATGTGGGCTATTACATCTGAAGAACGTACTAACAGCATGATAAACAGTTGATAACCTCAAACC
TTCAGGAGGTTACATAACAGGTGATCAAGCCGTACTTTTCTACAGTCAGGTCTGCCGGCCCCGGTTT
AGCTGAAATATGGGCTTATCAGATCTGAACAAGGATGGGAGATGGGACCAAGAGTTCTATAGCTA
TGAAACTCATCAAGTAAAGTTGCAGGGCCAACAGCTGCCTGTAGTCCTCCCTATCATGAAACAACCCC
CTATGTTCTCTCCACTAATCTCTGCTCGTTGGATGGGAGCATGCCAATCTGTCCATTCATCAGCCAT
TGCCTCCAGTTGCACCTATAGCAACACCCCTGTCTGCTACTTCAGGGACCAGTATTCCCTCCCTAATGA
TGCTGCTCCCTAGTCCTCTGTTAGTACATCCTCATTACAAATGGAAGTCCAGTCTCATTAGCCT
TATCCATTCTTATTCTCTTCAACATTGCCATGCATCATCTTACAGCCTGATGATGGGAGGATTGGTGG
TGCTAGTATCCAGAAGGCCAGTCTGTGATTAGGATCTAGTAGCTCAACTCCTCAACTGCTCCCT
CTCAGGGAACTCACCTAACAGACAGGGACCTCAGAGTGGGAGTCAGCTCAGCCTCAAGATTAAAGTATCGGC
AAAAATTAAAGTCTAGACAAAGGCATGAGCGGATACCTCTCAGGTTTCAAGCTAGAAATGCCCTCTTC
AGTCAAATCTCTCAAACACTAGCTACTATTGGACTCTGGCTGACATCGATGGTACGGACAGTTGA
AAGCTGAAGAATTATTCTGGCGATGCACCTCACTGACATGGCCAAGCTGGACAGCCACTACCACTGACG
TTGCCCTCCGAGCTGTCCCTCATCTTCAGAGGGGGAAAGCAAGTTGATTGTTAATGGAACCTGCCT
TCATATCAGAAAACACAAGAAGAAGAGCCTCAGAAGAAACTGCCAGTTACTTTGAGGACAAACGAAAGC
CAACTATGAACGAGGAAACATGGAGCTGGAGAAGCGACGCCAAGTGTGATGGAGCAGCAGCAGAGGGA
GGCTGAACGCAAAGCCCAGAAAGAGAAGGAAGAGTGGAGCAGGAAACAGAGAGAACTGCAAGAGCAAGA
ATGGAAGAAGCAGCTGGAGTTGGAGAAACGCTGGAGAAACAGAGAGAGCTGGAGAGACAGCAGGAGGA
AGAGAGGAGAAAGGAGATAGAAAAGACGAGAGGCAGCAAAACAGGAGCTTGAGAGACAACGCCGTTAGAA
TGGGAAAGACTCCGTCGGCAGGAGCTGCTCAGTCAGAAGACCAGGGAAACAAGAAGACATTGTCAGGCTGA
GCTCCAGAAAGAAAAGTCTCACCTGGAACCTGGAAGCAGTGAATGGAAAACATCAGCAGATCTCAGGAGA
CTACAAGATGTCCAAATCAGAAAGCAAACACAAAAGACTGAGCTAGAAGTTGGATAAACAGTGTGACCTG
GAAATTATGGAATCAAACAACCTCAACAAGAGCTTAAGGAATATCAAATAAGCTTATCTATCTGGCCCTG
AGAAGCAGCTTAAACGAAAGAATTAAAAACATGCAGCTCAGTAACACACCTGATTAGGGATCAGTTAC
TTCATAAAAGTCATCAGAAAAGGAAGAATTATGCCAAAGACTTAAGAACATTAGATGCTCTGAAAAAGA
AACTGCATCTAAGCTCTGAAAGGATTCAATTAAACAATCAGCTGAAGGAACCTAGAGAAAGCTATAATAC
ACAGCAGTTAGCCCTGAAACAACCTCATAAAATCAAACGTGACAAATTGAAGGAAATCGAAAGAAAAAGATT
AGAGCAAAAAAA

ATGGCAGTGACATTACCATCATGGGAACCACCTCCCTTCTCAGGATTCTCTGTAGTGGAAAGAGAGCA
CCCAGTGTGGCTGAAAACATCTGAAAGTAGGGAGAAGAACCTAAAATAATCAGTATCTCAGAGGGCTCT
AAGGTGCCAAGAAGTCTCACTGGACATTAAAGTGCCAACAAAGGCATACTTCGGAATGCCAAGTCAAAA
CTTCTAACTCTGTCTCTCAGAGACAAGTGAGACTCAAGAGTCACTGCTTAGTGGCAACTACAGAAA
ACTGGTGTACCCAGAAAAACAGGAGCAATTAGAAATGGTCCAATATTCAAAGCTCCGCAAACAGGATGT
GCTTCCTTGCCCATTAGGGTTCTCTCTTCTTTATTAACCACTA

Fig. 2B

ATATCTAGAAGTCTGGAGTGAGCAAACAAGAGCAAGAAACAAAAGAAGCCAAAAGCAGAAGGCTCCAATA
TGAACAAGATAAAATCTATCTCAAAGACATATTAGAAGTTGGGAAAATAATTATGTGAAGTGTG
TTAAGAGTGATAAGTAAAATGCACGTGGAGACAAGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCTGT
CACCTGGGAGTGAGAGGACAGGGATAGTCATGTTCTGTCTGAATTAGTTATATGTGCTGTATG
TTGCTCTGAGGAAGCCCTGGAAAGTCTATCCCAACATATCCACATCTTATATTCCACAAATTAGCTGTAG
TATGTACCCCTAAGACGCTGCTAATTGACTGCCACTCGCAACTCAGGGGCGGCTGCATTTAGTAATGGGT
CAAATGATTCACTTTATGATGCTTCAAAGGTGCCCTGGCTCTTCCAACTGACAAATGCCAAAGTTG
AGAAAAATGATCATAATTAGCATAAACAGAGCAGTCGGCGACACCGATTTATAAATAAACTGAGCACCTT
CTTTTAAACAAACAAATGCGGTTATTCTCAGATGATGTTCATCCGTGAATGGTCCAGGGAAAGGACCTT
TCACCTTGACTATATGGCATTATGTCATCACAAGCTCTGAGGGCTCTCCCTTCCATCCTGCGTGGACAGCTA
AGACCTCAGTTCAATAGCATCTAGAGCAGTGGACTCAGCTGGGTGATTCGCCCTCATCTCCGGGG
GAATGTCTGAAGACAATTGTTACCTCAATGAGGGAGTGGAGGGAGGATACAGTGTACTACCAACTAGTG
GATAAAGGCCAGGGATGCTGCTCAACCTCCTACCATGTACAGGACGCTCCCTTACAACTACCAATCC
GAAGTGTCAACTGTGTCAGGACTAAGAAACCTGGTTTAGTAGAAAAGGGCTGGAAAGAGGGAGCC
AACAAATCTGCTGCTTCACTTAGTCATTGGCAAATAAGCATTCTGCTCTTGGCTGCTGCCTCAGC
ACAGAGAGGCCAGAACTCTACGGGCACCAAGGATAACATCTCTCAGTGAACAGAGTTGACAAGGCCTATGGG
AAATGCCTGATGGATTATCTTCAGCTTGTGAGCTTCAAGTTCTTCCCTTCAATTCTACCCCTGCAAGCCA
AGTTCTGTAAGAGAAATGCCTGAGTTCTAGCTCAGGTTTCTTACTCTGAATTAGATCTCCAGACCCCTCCT
GGCCACAATTCAAATTAGGCAACAAACATATACCTTCCATGAAGCACACACAGACTTTGAAAGCAAGGAC
AATGACTGCTGAATTGAGGCCCTGAGGAATGAAGCTTGAAGGAAAAGAATACTTGTGTTCCAGCCCCCTT
CCCACACTCTCATGTGTTAACCACTGCCTCCTGGACCTGGAGCCACGGTGACTGTATTACATGTTGTTA
TAGAAAATGATTAGAGTTCTGATGTTCAAGAGAATGATTAAATACATTCTCA

Element Display		Probe1	Exp	Probe2	GEM/Element	Plate/Well	Probe1	SB	A%	Probe2	S/B	A%
+1.7	364A Ovary T (mets)	272A Dendritic cells	42240608 (420)	421G0196 (C:11)	2393	13.7	50	1430	2.0	50		
-1.1	335A Ovary T	S7 Ovary N	42220626 (420)	421G0196 (C:11)	355	2.7	54	362	1.8	54		
+1.8	261A Ovary T	S10 Skeletal muscle N	42230621 (420)	421G0196 (C:11)	1298	6.9	51	707	1.9	51		
+8.1	264A Ovary T	S2 Pancreas N	422N0629 (420)	421G0196 (C:11)	9590	44.0	62	1190	2.3	62		
-1.2	365A Ovary T	S40 PBMC (activated)	422J0605 (420)	421G0196 (C:11)	516	3.8	50	619	2.0	50		
+4.7	265A Ovary T	C15 Heart N	42290624 (420)	421G0196 (C:11)	2305	14.4	53	489	2.2	53		
-1.4	S25 Ovary T	C14 Bone Marrow N	422h0619 (420)	421G0196 (C:11)	531	3.5	53	743	2.0	53		
	363A Ovary T (mets)	H Colon N	422B0609 (420)	421G0196 (C:11)	1842	10.6	39	674	2.0	39		
-1.9	S22 Ovary T	C19 Kidney N	42290627 (420)	421G0196 (C:11)	453	3.3	66	857	3.2	68		
+3.2	9485 OT-1-P (SCID)	9485 OT-5-P (SCID)	422Y0602 (420)	421G0196 (C:11)	1882	12.1	57	594	2.3	57		
+1.5	262A Ovary T	334A Large Intestine N	422A0622 (420)	421G0196 (C:11)	1486	7.5	55	965	2.2	55		
-1.1	S115 Ovary T (mets)	C110 Small intestine N	422C0604 (420)	421G0196 (C:11)	509	3.4	51	573	2.0	51		
+1.1	268A Ovary T	C112 Lung N	422V0625 (420)	421G0196 (C:11)	700	4.5	54	651	2.1	54		
-2.1	201A Ovary T	S6 Stomach N	422M0620 (420)	421G0196 (C:11)	625	4.6	46	1335	3.6	46		
+7.8	S23 Ovary T	S56 Spinal Cord N	422G0628 (420)	421G0196 (C:11)	3896	22.1	50	502	2.2	50		
+1.8	205A Ovary T	270A Liver N	42200606 (420)	421G0196 (C:11)	2251	14.7	46	1256	2.0	46		
-1.9	9334 Ovary T (SCID)	I2 Skin N	422R0601 (420)	421G0196 (C:11)	552	3.4	72	1029	2.3	72		
+5.6	365A Ovary T	S91 Fetal tissue	422X0607 (420)	421G0196 (C:11)	8126	35.1	50	1449	2.0	50		
-3.5	263A Ovary T	S73 Breast N	422H0623 (420)	421G0196 (C:11)	439	3.2	61	1531	3.4	61		
-3.3	362A Ovary T	C119 Brain N	422G0610 (420)	421G0196 (C:11)	387	3.2	50	1278	2.1	50		
+4.8	268A Ovary T	S21 Ovary N	42250603 (420)	421G0196 (C:11)	4242	22.1	56	883	2.0	58		

Fig. 3

Serial No. 09/827,271 Docket No. 210121.462C6

Inventor(s): Jennifer L. Mitcham et al.

Express Mail No. EV719392064US

"REPLACEMENT SHEETS"

TCGAGCGGCCGCCGGGCAGGTCTTCAGACTGGACTGTGTACACTGCCAGGCTCCAGGGCTCCAAC
TTGCAGACGGCCTGTTGAGACAGTCTCTGTAATCGCGAAAGCAACCATGGAAGACCTGGGGAAAACA
CCATGGTTTATCCACCCCTGAGATCTTGAACAACCTCATCTCAGCGTGCAGGGAGGCTGGACTG
GATATTCTACCTCGGCCGCGACCACGCT

Fig. 4

TAGCGYGGTCGGCCGAGGYCTGCTTYCTGTCCAGCCCAGGGCTGTGGGGTCAGGGCGGTGGGTGC
AGATGGCATCCACTCCGGTGGCTCCCATCTTCTCTGGCCTGAGCAAGGTAGCCTGCAGCCAGAGTA
CAGAGGGCCAACACTGGTGTCTGAACAAGGGCTTAGCAGGCCCTGAAGGRCCCTCTGTAGTGTG
AACCTCCTGGAGCCAGGCCACATGTTCTCCTCATACCGCAGGYTAGYGATGGTGAAGTTGAGGGTGAAATA
GTATTMANGRAGATGGCTGGCARACCTGCCCGGGCGCTCSAAATCC

Fig. 5

Serial No. 09/827,271 Docket No. 210121.462C6

Inventor(s): Jennifer L. Mitcham et al.

Express Mail No. EV719392064US

"REPLACEMENT SHEETS"

AGCGTGGTGGCGGCCGAGGTGCTTCAGGGCTGCTTATGCCCTGTTCAAGAACACCAGTGTCAAGCTCT
CTGTACTCTGGTTGCAGACTGACCTGCTCAGGCCTGAGAAGGATGGGGCAGCCACCAGAGTGGATGCTG
TCTGCACCCATCGTCCTGACCCAAAAGCCCTGGACTGGACAGAGAGCAGGGCTGTACTGGAAGCTGAGCCA
GCTGACCCACGGCATCACTGAGCTGGCCCCCTACACCCCTGGACAGGGACAGTCTATGTCAATGGTTTC
ACCCATCGGAGCTCTGTACCCACCACAGCACCGGGGTGGTCAGCGAGGAGCCATTCAACCTGCCCGGG
CGGCCGCTCGA

Fig. 6

Fig. 7A

TTGGGGNTTMGAGCGGCCGCCGGCAGGTACCGGGTGGTCAGCGAGGAGCCATTACACTGAACCT
CACCATCAACAACCTCGGGTATGAGGAGAACATGCAGCACCCCTGGCTCCAGGAAGTTCAACACCACGGAG
AGGGTCCTTCAGGGCCTGCTCAGGTCCCTGTTCAAGAGCACCAGTGTGGCCCTCTGTACTCTGGCTGCA
GACTGACTTTGCTCAGACTTGAGAACATGGGGCAGCCACTGGAGTGGACGCCATCTGCACCCCTCCGCCT
TGATCCCCTGGTCCTGGACTGGACAGAGAGCGGCTATACTGGGAGCTGAGCCAGTCCTCTGGCGGNGAC
NCCNCTT

Fig. 7B

AGCGTGGTCGCGGCCGAGGTCCAGTCGAGCATGCTTTCTCCTGCCCACTGGCACAGTGAGGAAGATC
TCTGCTGTCAGTGAGAACAGGCTGTCATCCACTGAGATGGCAGTCAGTCAAAAGTGCATTAAACACCTAACGTATC
GAACATCATAGCTTGGCCCAGGTTATCTCATATGTGCTCAGAACACTTACAATAGCCTGCAGACCTGCCCG
GGCGGCCGCTCGA

Fig. 7A and 7B

Serial No. 09/827,271 Docket No. 210121.462C6

Inventor(s): Jennifer L. Mitcham et al.

Express Mail No. EV719392064US

"REPLACEMENT SHEETS"

TGTGGTGTGAACTCCTGGAGNCAGGGTACCCATGTCCCTCCCCATACTGCAGGTTGGTATGGTGAAGT
TGAGGGTGAATGGTACCAAGGAGAGGGCCAGCAGCCATAATTGTSGRGCKGSMSSGAGGMWGGWGT
YCWGAGGTTCYRARRTCCACTGTGGAGGTCCCAGGAGTGCTGGTGGTGGGCACAGAGSTCYGATGGGT
AAACCATTGACATAGAGACTGTTCCAGGGTAGGGGGCCCAGCTTYRATGYCATTGGYCAGTTK
GCTYAGCTCCCAGTACAGCCRCTCTCKGYYGMGWCCAGSGCTTTGGGGTCAAGATGATGGATGCAGATG
GCATCCACTCCAGTGGCTGCTCCATCCTCTGGACCTGAGAGAGGTCAAGATGATGGATGCAGATG
GGCCAACACTGGTGTCTTGAAATA

Fig. 8

Serial No. 09/827,271 Docket No. 210121.462C6

Inventor(s): Jennifer L. Mitcham et al.

Express Mail No. EV719392064US

"REPLACEMENT SHEETS"

TCGAGCGGCCGCCGGGCAGGTAGGAAGCACATTGGCTTAGAGCCACTGCCTCCTGGATTCCACCTGT
GCTGCGGACATCTCCAGGGAGTCAGAAGGGAAAGCAGGTCAAACGTGTCAGATCAGTCAGACTGGCTGTT
CTCAGTTCTCACCTGAGCAAGGTAGTCTGCAGCCAGAGTACAGAGGGCCAACACTGGTGTTCTGAACAA
GGGCTTGAGCAGACCCCTGCAGAACCTCTTCCGTGGTGTGAACTCCTGGAAACCAGGGTGTGCATGTT
TTTCCTCATAATGCAAGGTTGGTGATGG

Fig. 9

Gene Name	Batch	Probe 1 Expr Name	P1 ID	Probe 2 Expr Name	P2 ID	GEM ID	Probe1 Value	Probe2 Value	Probe1 S/B	Probe2 S/B	Probe1 A%	Probe2 A%
42100188 (D3)		+7.0 205A Ovary T	270A Liver N	422Q0606	8620	1240	57.7	65	2.2	65		
42100188 (D3)		+5.9 S23 Ovary T	556 Spinal Cord N	422G0628	5894	1002	35.3	89	3.9	89		
42100188 (D3)		+5.7 385A Ovary T	S91 Fetal tissue	422X0607	12151	2121	54.3	73	2.8	73		
42100188 (D3)		+5.1 426A Ovary T (met)	415A Aborta N	422X0611	7487	1480	53.0	73	9.7	73		
42100188 (D3)		+3.5 263A Ovary T	S73 Breast N	422H0623	7302	2116	39.2	84	4.5	84		
42100188 (D3)		+3.3 383A Ovary T (met)	11 Colon N	422B0609	3714	1113	20.4	83	2.6	83		
42100188 (D3)		+3.0 933A Ovary T (SCID)	12 Skin N	422R0601	2435	814	12.1	75	2.1	75		
42100188 (D3)		+2.6 384A Ovary T (met)	272A Dendritic cell42240608	4578	1754	25.0	69	2.3	69			
42100188 (D3)		+2.2 264A Ovary T	S2 Pancreas N	422N0629	7904	3596	38.5	81	5.6	81		
42100188 (D3)		+2.0 386A Ovary T	S40 PRMC (activat422J0605	2191	1081	14.0	90	2.9	90			
42100188 (D3)		+2.0 S115 Ovary T (met)	CT10 Small intestine422C0604	1979	971	10.4	80	2.7	80			
42100188 (D3)		+2.0 265A Ovary T	CT5 Heart N	42200624	1911	964	13.9	93	3.4	93		
42100188 (D3)		+2.0 335A Ovary T	S7 Ovary N	42200626	1666	817	9.8	100	3.0	100		
42100188 (D3)		+1.9 428A Ovary T (met)	243A Esophagus N42240612	1827	3480	13.4	97	9.5	97			
42100188 (D3)		+1.6 261A Ovary T	S10 Skeletal muscle42230621	5914	3653	30.4	86	6.0	86			
42100188 (D3)		+1.6 266A Ovary T	S27 Ovary N	42250603	2039	1274	11.9	50	2.6	50		
42100188 (D3)		+1.6 S22 Ovary T	CT19 Kidney N	42290627	1736	1072	11.0	92	4.0	92		
42100188 (D3)		+1.4 9485 OT 1-P (SCID)	9485 OT 5-P (SCID)422Y0602	4204	3074	23.0	93	7.7	93			
42100188 (D3)		+1.4 262A Ovary T	334A Large Intest422A0622	3002	2101	16.6	89	4.0	89			
42100188 (D3)		+1.3 S25 Ovary T	CT14 Bone Marrow 422H0619	1643	1297	9.6	90	3.1	90			
42100188 (D3)		+1.2 429A Ovary T (met)	364A Ovary N	422T0614	2521	2084	22.0	65	23.9	65		
42100188 (D3)		+1.2 382A Ovary T	CT19 Brain N	422Q0610	2072	1663	10.9	88	2.3	88		
42100188 (D3)		+1.2 288A Ovary T	CT12 Lung N	422V0625	1840	1473	10.7	87	3.8	87		
42100188 (D3)		+1.1 201A Ovary T	S6 Stomach N	422W0620	1329	1204	9.1	90	3.5	90		

Fig. 10

Gene Name	Bal Probe 1 Exp. Name	P1	P2	Probe 2 Name	Gene ID	Probe1 Value	Probe2 Value	Probe1 S/B	Probe2 S/B	Probe1 A%	Probe2 A%
								NS	NS		
42IB0181 (C3)	+18.8 385A Ovary T	②	②	S91 Fetal tissue	422X0607	26711	1424	103.3	54	2.0	.94
42IB0181 (C3)	+11.5 S23 Ovary T	②	②	S56 Spinal Cord N	422G0628	13559	1179	65.3	68	3.9	.68
42IB0181 (C3)	+11.1 426A Ovary T (mets)	②	②	415A Aorta N	422X0611	14125	1273	.67.3	61	5.6	.61
42IB0181 (C3)	+10.8 205A Ovary T	②	②	270A Liver N	422Q0606	16121	1488	93.1	43	2.3	.43
42IB0181 (C3)	+5.1 263A Ovary T	②	②	S73 Breast N	422H0623	11326	2235	58.2	68	4.4	.68
42IB0181 (C3)	+4.6 384A Ovary T (mets)	②	②	272A Dendritic cells	422A0608	6583	1424	24.5	40	2.1	.40
42IB0181 (C3)	+4.4 264A Ovary T	②	②	S2 Pancreas N	422NU629	9865	2245	40.9	64	3.6	.64
42IB0181 (C3)	+4.4 429A Ovary T (mets)	②	②	364A Ovary N	422I0614	2803	638	22.6	60	7.4	.60
42IB0181 (C3)	+4.2 261A Ovary T	②	②	S10 Skeletal muscle M22J0621	8271	1949	39.5	68	3.6	.68	
42IB0181 (C3)	+3.8 S115 Ovary T (mets)	②	②	C110 Small intestine M22J0604	2281	6077	11.6	60	2.1	.60	
42IB0181 (C3)	+2.5 265A Ovary T	②	②	CT5 Heart N	422W0624	3192	1293	19.2	68	4.0	.68
42IB0181 (C3)	+2.3 S22 Ovary T	②	②	CT9 Kidney N	422B0627	565	1276	3.6	70	3.9	.70
42IB0181 (C3)	+2.2 266A Ovary T	②	②	S27 Ovary N	422S0603	2774	1260	14.3	46	2.7	.46
42IB0181 (C3)	+2.1 933A Ovary T (SCID)	②	②	12 Skin N	422R0601	1774	837	8.4	56	2.1	.56
42IB0181 (C3)	+1.9 9485 OT 1-P (SCID)	②	②	9485 OT 5-P (SCID)	422Y0602	6967	3726	41.5	70	9.2	.70
42IB0181 (C3)	+1.6 382A Ovary T	②	②	CT19 Brain N	422Q0610	2313	1471	6.2	50	1.9	.50
42IB0181 (C3)	+1.6 288A Ovary T	②	②	CT12 Lung N	422Y0625	1657	1054	9.7	69	2.9	.69
42IB0181 (C3)	+1.5 S25 Ovary T	②	②	CT4 Bone Marrow N	422H0619	848	1243	4.5	65	2.7	.65
42IB0181 (C3)	+1.4 262A Ovary T	②	②	334A Large Intestine	422A0622	3171	2214	16.8	69	3.8	.69
42IB0181 (C3)	+1.2 386A Ovary T	②	②	S40 PBMC (activated)	422I0605	630	544	4.2	53	1.9	.53
42IB0181 (C3)	+1.2 335A Ovary T	②	②	S7 Ovary N	422B0626	592	730	3.7	75	2.6	.75
42IB0181 (C3)	+1.0 201A Ovary T	②	②	S6 Stomach N	422W0620	1197	1237	7.8	65	3.5	.65
42IB0181 (C3)	+1.0 428A Ovary T (mets)	②	②	243A Esophagus N	422A0612	783	797	4.5	95	2.4	.95
42IB0181 (C3)	+383A Ovary T (mets)	②	②	II Colon N	422B0609	3470	862	8.9	24	1.7	.24

Fig. 11

Gene Name	Bait Probe 1 Exp. Name	P1	P2 Name	Probe 2 Name	GEM ID	Probe1 Value	Probe2 Value	Probe1 S/B	Probe2 S/B	A%	B%
4210182 (H7)	+16.7 426A Ovary T (met)		415A Aorta N	422X0611	7106	46.3	7.5	3.5	7.5		
4210182 (H7)	+10.7 205A Ovary T		270A Liver N	42200606	10171	950	61.2	41	1.8	41	
4210182 (H7)	+9.9 385A Ovary T		591 Fetal tissue	422X0607	14415	1459	62.1	48	2.2	48	
4210182 (H7)	+8.8 523A Ovary T		556 Spinal Cord N	422G0628	7781	880	47.3	73	3.4	73	
4210182 (H7)	+6.4 383A Ovary T (met)		11. Colon N	422B0609	4807	748	27.6	47	2.2	47	
4210182 (H7)	+5.1 263A Ovary T		573 Breast N	422B0623	9815	1909	57.1	74	4.2	74	
4210182 (H7)	+4.9 429A Ovary T (met)		364A Ovary N	422D0614	2661	543	26.3	61	6.7	61	
4210182 (H7)	+3.5 264A Ovary T		S2 Pancreas N	422N0629	7934	2274	38.8	71	3.9	71	
4210182 (H7)	-2.9 S25 Ovary T		CT4 Bone Marrow	422H0619	480	1375	3.5	80	3.0	80	
4210182 (H7)	+2.8 261A Ovary T		S10 Skeletal muscle	42230621	8993	3245	34.6	69	5.1	69	
4210182 (H7)	+2.5 S115 Ovary T (met)		CT10 Small intestine	422C0604	1864	738	8.1	67	2.2	67	
4210182 (H7)	+2.3 9334-Ovary T (SCL)		I2. Skin N	422R0601	2552	1113	12.7	41	2.6	41	
4210182 (H7)	-2.3 S22 Ovary T		CT19 Kidney N	42290627	386	880	3.2	69	3.4	69	
4210182 (H7)	+2.2 384A Ovary T (met)		272A Dendritic cell	42240608	3516	1567	18.7	55	2.2	55	
4210182 (H7)	-2.2 382A Ovary T		CT19. Brain N	42290610	608	1320	4.2	60	2.3	60	
4210182 (H7)	+1.9 265A Ovary T		CT15 Heart N	42200624	2063	1080	13.6	87	3.5	87	
4210182 (H7)	+1.8 266A Ovary T		S27 Ovary N	42250603	1550	847	7.0	58	2.1	58	
4210182 (H7)	+1.5 262A Ovary T		334A Large intestine	422A0622	2559	1651	13.2	73	3.2	73	
4210182 (H7)	-1.4 386A Ovary T		S40 PBMC (activat	42210605	534	738	3.9	62	2.2	62	
4210182 (H7)	-1.3 288A Ovary T		CT12 Lung N	422V0625	893	1120	5.3	66	3.1	66	
4210182 (H7)	-1.3 335A Ovary T		S7 Ovary N	42220626	440	567	3.3	60	2.2	60	
4210182 (H7)	+1.2 9485 OT-I-P (SCID)		9485 OT-I-P (SCID)	42240612	4188	3529	21.6	66	9.5	66	
4210182 (H7)	+1.1 428A Ovary T (met)		243A Esophagus	422A40612	725	689	6.2	65	2.8	65	
4210182 (H7)	-1.0 201A Ovary T		S6 Stomach N	422W0620	1008	1018	6.2	62	3.2	62	

Fig. 12

Gene Name	Batch	Probe 1 Exp Name	P1	Probe 2 P2 Name	GEM ID	Probe1 Value	Probe2 Value	Probe1 S/B	Probe2 S/B	A%	R%
42 V0189 (D1)		+33.2 426A Ovary T (met)		4.15A Aorta N	422X0611	8072	243	55.2	67	2.4	67
42 V0189 (D1)		+13.7 S23 Ovary T		S56 Spinal Cord N	422G0628	7367	537	42.6	69	2.5	69
42 V0189 (D1)		+12.6 429A Ovary T (inc)		364A Ovary N	42210614	2850	227	21.7	64	3.5	64
42 V0189 (D1)		+8.0 385A Ovary T		S91 Fetal tissue	422X0607	11711	1469	54.0	58	2.2	58
42 V0189 (D1)		+7.3 263A Ovary T		S73 Breast N	422H0623	6949	952	37.8	69	2.6	69
42 V0189 (D1)		-5.8 S25 Ovary T		CT14 Bone Marrow	422H0619	208	1210	2.1	44	2.9	44
42 V0189 (D1)		+5.0 205A Ovary T		270A Liver N	422Q0606	8676	1737	52.3	57	2.6	57
42 V0189 (D1)		+4.5 383A Ovary T (met)		11 Colon N	422B0609	3149	707	17.4	57	2.0	57
42 V0189 (D1)		+4.4 261A Ovary T		S10 Skeletal muscle	42230621	6332	1443	29.1	77	2.9	77
42 V0189 (D1)		+4.2 264A Ovary T		S2 Pancreas N	422N0629	7612	1869	38.1	79	3.3	79
42 V0189 (D1)		-3.2 382A Ovary T		CT19 Brain N	422Q0610	468	1508	3.4	60	2.3	60
42 V0189 (D1)		+2.9 9334 Ovary T (SCT)		12 Skin N	422R0601	2500	860	12.3	51	2.1	51
42 V0189 (D1)		+2.5 S115 Ovary T (met)		CT10 Small intestine	422C0604	1424	569	6.7	61	2.1	61
42 V0189 (D1)		+2.4 265A Ovary T		CTS Heart N	422D0624	1742	723	11.8	70	2.8	70
42 V0189 (D1)		+2.3 384A Ovary T (met)		272A Dentin-like cell	42240608	3083	1342	17.0	62	2.0	62
42 V0189 (D1)		+1.9 266A Ovary T		S27 Ovary N	422S0603	1370	732	8.0	47	2.0	47
42 V0189 (D1)		-1.9 386A Ovary T		S40 PBMC (activated)	42210605	307	580	2.6	41	2.0	41
42 V0189 (D1)		+1.7 262A Ovary T		334A Large Intestine	422A0622	2097	1202	11.2	86	2.7	86
42 V0189 (D1)		-1.3 335A Ovary T		S7 Ovary N	42220626	373	470	2.9	47	2.0	47
42 V0189 (D1)		-1.1 288A Ovary T		CT12 Lung N	422V0625	969	1094	5.6	72	2.9	72
42 V0189 (D1)		+1.1 201A Ovary T		S6 Stomach N	422W0620	750	672	5.6	62	2.4	62
42 V0189 (D1)		+1.1 428A Ovary T (met)		243A Esophagus	422Z0612	498	446	4.2	73	2.1	73
42 V0189 (D1)		-1.0 9485 OT-1-P (SCID)		9485 OT-5-P (SCID)	422Z0602	3117	3174	16.7	91	8.2	91
42 V0189 (D1)		S22 Ovary T		C19 Kidney N	42290627	224	409	2.3	48	2.3	48

Fig. 13

Gene Name	Sample Name	Probe 1	Probe 2	GEN ID	Probe1 Value	Probe2 Value	Probe1 S/B	Probe2 S/B	A%	A%
421H0187 (E11)	+20.2 426A Ovary T (met)	415A Aorta N	422X0611	5441	270	363	50	2.3	30	30
421H0187 (E11)	+10.0 S23 Ovary T	S56 Spinal Cord N	422G0628	5318	27.1	56	2.3	3.6	36	36
421H0187 (E11)	+8.3 429A Ovary T (met)	364A Ovary N	422I0614	1252	150	10.1	58	2.5	38	38
421H0187 (E11)	+5.7 385A Ovary T	S91 Fetal tissue	422X0607	9507	1668	35.8	45	2.1	45	45
421H0187 (E11)	+4.2 205A Ovary T	270A Liver N	422Q0606	5456	1235	31.1	50	2.0	30	30
421H0187 (E11)	+4.2 265A Ovary T	CT5 Heart N	422Q0624	1834	438	11.9	48	2.0	48	48
421H0187 (E11)	-4.1 382A Ovary T	CT19 Brain N	422Q0610	309	1259	2.6	48	2.0	48	48
421H0187 (E11)	+3.6 261A Ovary T	S10 Skeletal muscle	42230621	3733	1036	17.7	55	2.3	55	55
421H0187 (E11)	+3.4 263A Ovary T	S73 Breast N	422H0623	4163	1239	23.0	62	3.0	62	62
421H0187 (E11)	+2.5 S115 Ovary T (met)	CT10 Small intestine	422G0604	1565	627	8.8	47	2.1	47	47
421H0187 (E11)	+2.1 264A Ovary T	S2 Pancreas N	422N0629	3455	1630	14.9	60	3.0	60	60
421H0187 (E11)	+2.1 384A Ovary T (met)	272A Dendritic cell	422940608	2667	1270	13.4	44	1.9	44	44
421H0187 (E11)	-2.1 S22 Ovary T	CT9 Kidney N	42290627	291	605	2.4	51	2.5	51	51
421H0187 (E11)	-1.7 386A Ovary T	S40 PBMC (activat	42210605	410	687	3.2	47	2.0	47	47
421H0187 (E11)	+1.6 9334 Ovary T (SCID)	I2 Skin N	422R0601	1622	980	7.9	44	2.2	44	44
421H0187 (E11)	+1.5 262A Ovary T	334A Large Intestin	422A0622	1892	1245	10.1	50	2.6	50	50
421H0187 (E11)	-1.5 288A Ovary T	CT12 Lung N	422V0625	604	908	4.1	62	2.6	62	62
421H0187 (E11)	-1.4 428A Ovary T (met)	243A Esophagus N	42240612	236	325	2.7	78	1.9	78	78
421H0187 (E11)	-1.3 335A Ovary T	S7 Ovary N	42220626	382	501	2.9	58	2.0	58	58
421H0187 (E11)	-1.2 201A Ovary T	S6 Stomach N	422W0620	538	677	4.2	58	2.3	58	58
421H0187 (E11)	+1.0 9485 OT 1-P (SCID)	9485 OT 5-P (SCID42-Y0602	2582	2493	15.1	57	6.3	57	57	57
421H0187 (E11)	383A Ovary T (met)	I1 Colon N	422B0609	2261	562	12.5	38	1.7	38	38
421H0187 (E11)	266A Ovary T	S27 Ovary N	42250603	1739	965	9.7	36	2.2	36	36
421H0187 (E11)	S25 Ovary T	CT4 Bone Marrow	4225H0619	283	845	2.2	44	2.2	44	44

Fig. 14

11721-1

ACGGTTCAATGGACACTTATTGTTACTTAATGGATCATCAATTGTCTCACTACCTACAAATGGAATT
CATCTTGTTCATGCTGAGTAGTGAAACAGTGACAAAGCTAATCATAATAACCTACATCAAAGAGAACTAA
GCTAACACTGTCACTTCTTTAACAGGCAAAATATAATATGCACCTAXAATGCACAATGGTTAGT
CACTAAAAAATTCAAATGGGATCTTGAAGAATGTATGCAAATCCAGGGTGCAGTGAAAGATGAGCTGAGATG
CTGTGCAACTGTTAAGGGTCTGGCACTGCATCTTGCCACTAGCTGAATCTTGACATGGAAGGTTT
AGCTAATGCCAAGTGGAGATGCAGAAATGCTAAGTTGACTTAGGGCTGTGCACAGGAACTAAAAGGCAG
GAAAGTACTAAATATTGCTGAGAGCATCCACCCAGGAAGGACTTACCTCCAGGAGCTCCAAACTGGCA
CCACCCCCAGTGCTCACATGGCTGACTTATCCTCGTGTCCATTGGCACAGCAAGTGGCAGTG

11721-2

AAGGCTGGTGGTTTGATCCTGCTGGAGAACCTCCGCTTCATGGAGGAAGAAGGGAGGGAAAAG
ATGCTTCTGGGAACAAGGTTAAAGCCGAGCCAGCCAAAATAGAAGCTTCCGAGCTTCACTTCCAAGCTA
GGGGATGTCTATGTCATGATGCTTGGCACTGCTCACAGAGCCCACAGCTCCATGGTAGGAGTCATCT
GCCACAGAAGGCTGGGGTTTGATGAAGAAGGAGCTGAACACTTTGCAAAGGCCTGGAGAGCCCA
GAGCGACCCCTCCTGGCCATCCTGGCGGAGCTAAAGTTGCAGACAAGATCCAGCTCATCAATAATATGCT
GGACAAAGTCATGAGATGATTATTGGTGGGAATGGCTTACCTCCTTAAGGTGCTCAACACATGGA
GATTGGCACTCTGTGATGAAGAGGGAGCCAAGATTGTCAAAGACCTAATGTCCAAAGCTGAGAAGA
ATGGTGTGAAGATTACCTGCCTGTTGACTTGTCACTGCTGACAAGTTGATGA

11724-1

TTGTTCTTACATTTCTAAAGAGTTACTAAATCAGTCACGGTCTTGAGACTCTTAAGTTCTGATTCC
AACTTAGCTAATTCTGAGAACTGTGGTATAGGTGGCGTGTCTCTCTAGCTGGGACAAAAGTTCTTG
TTTCCCCCTGTAGAGTATCACAGACCTCTGCTGAAGCTGGACCTCTGCTGGGACTCCAAAT
CTGCTTGTCAAGCCTGGAAATGTTAATCTTAAATTCTCCATATGGATGGACATCTGCTAAGTTGA
TCCTTCTAGAACACTGCAATTATCTCTTGAGTCTAATTCTCTTCTTGCTTGATCGCATCACTAAACT
CCTCTCCCATTCTTAGCTCATCTACCCCTGTCAGCATCCTGGAGGGAAAGACATGCTCTAGTAA
GGCTGCAAGCTGGGTACAGTACTGTCCAAGTTCTGAAGTTGCTGAACTCCTGTCTTCTGTTCAA
AGTAACCTGAATCTCCAATTGTCTCTCCAAGTGGACTTTCTGCGCAAAGCATCCAG

11724-2

TCATTGCCTGTGATGGCATCTGGAATGTGATGAGCAGCCAGGAAGTTGATTTCAATCAAAGGATT
CAGCATGTGGTGGAAAGCTGTGAGGCAAGAGAAACAAGAACTGTATGGCAAGTTAAGAAGGCACAGAGGCAA
ACAAGAAGGAGACAGAAAAGCAGTTGCAGGAAGCTGAGCAAGAAATGGAGGAAATGAAAGAAAAGATGAG
AAAGTTGCTAAATCTAACAGCAGAAAATCCTAGAGCTGGAGAAGAATGACCGGCTTAGGGCAGAGG
TGCACCCCTGCAGGGAGATACAGCTAAAGAGTGTATGGAAACACTTCTTCTCCAATGCCAGCATGAAGGAA
GAACTTGAAAGGGTCAAAATGGAGTATGAAACCCCTTAAGAAGTTCAGTCTTAATGTCTGAGAAAGAC
TCTCTAAGTGAAGAGGTTCAAGATTAAAGCATCAGATAGAAGGTAATGTATCTAAACAAGCTAACCTAGAG
GCCACCGAGAAACATGATAACCAACGAATGTCACTGAAGAGGGAAACACAGTCTATACCAGGT

11725-32-1.2

AAGCCAATAATCACCATTTACTTAATATGCCAACCACTGTACTGGCAGTTCACAAATTCTACCGTT
ACAACAACCCATGAGGTATTCTTCCATTCTATAGATAGGGAAACCACAGCTCAAGTAAGTTAGGAAACT
GAGCCAAGTATAACACAGAACAGAACAGTGGCAAAACTAGAAGGGAAAGACTGACACTGCTATCTGCTGGCCTC
CAGTGTCTGGCTCTTACACGGGTCATGTCTCCAGCGCTGCTGCTGCATTACCATGCCCTC
ATTGTTTCTTCCCTGGTCACTGCATCCTCAAAGAATCTAACTCATTCCAGAGACCACTATTCTT
TCTCTCTTCTGAAATTACTTTAATAATTCTCATGAGGGGAAAAGAAGATGCCTGTTGGTAGTTGTTG
TTAAGCTGCTCAATTGGGACTAAACAATTGTTTACATCTGTACATCCTGTAACAGCTGTGTTGCTA
GAAAGATCACTCTCCCTCTTTAGCATGGCTCTAACCTCTCAATTCAATTCTTCAACACAAAT
CTCAAGTTCTCAAACGTGATGCAGAAGAGGCCCTTCAAGTTATGTTGCTACTTCTGAACATGTGC
TTTAAAGATTCAATTCTTCTGAAGATCCTGTAACCCTCCCTGATTGGCTAGGTCTTCTTTCTTCA
CCAAAACAGCCTCATGGTATTGATCTGTTCTCTTTAATAAGTTCAAGGAGCTTCAGAAC

11726-1&2

CAAGCTTTTTTTTTTTAAAAAGTGTAGCATTAAATGTTTATTGTCACGCAGATGGCAACTGGTTTATG
TCTCATATTATTTATTTGTAAATTAAAAAAATTACAAGTTAAATAGCCAATGGCTGGTTATATTTCAGA
AAACATGATTAGACTAATTCTTAATGGTGGCTCAAGCTTCTTATTGGCTCCAGAAAATTACCCACCT
TTGTCCCTCTTAAAAAAACTGGAATGTTGGCATGCATTGACTTCACACTCTGAAGCAACATCCTGACAGTC
ATCCACATCTACTTCAAGGAATATCACGTTGAATACTTTAGAGAGGGAAATGAAAGAAAGGCTTGATCAT
TTGCAAGGCCACACCACGTGGCTGAGAAGTCAACTACTACAAGTTATCACCTGCAGCGTCCAAGGCTT
CCTGAAAGCAGTCTGCTCTGATCTGCTTCAACATCTGGCTGCTGGAGTCTGACGAGCGGCTGTAAGG
ACCGATGGAAATGGATCCAAGCACCAACAGAGCTCAAGACTCGCTGTTGGCTGAATTGGATCCGA
TATGCCATGGCCT

11727-1&2

AAGTGTAGCATTAAATGTTTATTGTCACGCAGATGGCAACTGGTTTATGTCATATTATTTGTA
AATAAAAAAATTMCAAGTTAAATAGCCAATGGCTGGTTATTTTCAGAAAACATGATTAGACTAATTCTAT
TAATGGTGGCTCAAGCTTCTTATTGGCTCCAGAAAATTACCCACCTTGTCCCTCTTAAAAAAGT
GAATGTTGGCATGCATTGACTTCACACTCTGAAGCAACATCCTGACAGTCATCCACATCTACTCAAGGAA
TATCACGTTGGAATACTTTAGAGAGGGAAATGAAAGAAAGGCTTGATCATTTGCAAGGCCACACCACGT
GGCTGAGAAGTCAACTACTACAAGTTATCACCTGCAGCGTCCAAGGCTTCTGAAAAGCAGTCTGCTCT
CGATCTGCTTCAACATCTGGCTGCTGGAGTCTGACGAGCGGCTGTAAGGACCGATGGAAATGGATCCAA
GCACCAACAGAGCTCAAGACTCGCTGCTGGCATGAATTGGATCCGA

11728.1.40.19.19

TACAAACTTATTGAAACGCACACGCGCACACACACAAACACCCCTGTGGATAGGGAAAGCACCTGGCCA
CAGGGTCCACTGAAACGGGGAGGGATGGCAGCTTGTATGTGGCTTTGCCACAACCCCTCTGACAG
GGAAGGCCTTAGATTGAGGCCACCTCCCAGGTGATGGGAGCTCAGAATGGGTCCAGGGAGAATT
GGTAGGGGAGGTGCTAGGGAGGCATGAGCAGAGGGCACCCCTCGAGTGGGTCCCGAGGGCTGCAG
AGTCTTCAGTACTGTCCTCACAGCAGCTGCTCAAGGCTGGTCCCTCAAAGGGCGTCCAGCGCGGG
GCCTCCCTGCGAACACTTGGTACCCCTGGCTGCGCAGCGGAAGCCAGCAGGACAGCAGTGGCGCCGA
TCAGCACAACAGACGCCCTGGCGTAGGGACAGCAGGCCAGCCCTGTCGGTTCTCGGCAGCAGGTC
TGGTTATCATGGCAGAAGTGTCTCCCACACTCACGTCTTACACCCACGTGAXGGTACXGGCCAGG
AAG

11728.2.40.19.19

CCCGTGGGTGCCATCCACGGAGTTACCTGATCTTGAAGCAGGATGCCCGTCTGCACTCAGTGG
AAGCCCCGTGGCAGCAGTGTGCCATCCCCGATGCCACGGCCTCTGGGAAGGGGAGCAACTGGAA
GTCCCTGAGACGGTAAAGATGCAGGAGTGGCCGGCAGAGCAGTGGCATCAACCTGGCAGGGGCCACCC
AGATGCCTGCTCAGTGTGGGCCATTGTCCAGAAGGGGACGGCAGCAGCTGTAGCTGGCTCTCCGG
GGTCCAGGCAGCAGGCCACAGGGCAGAACTGACCATCTGGGCACCGCGTTCCAGCCACCAGCCCTGCTG
TTAAGGCCACCCAGCTCACCAGGGCACATGGTCTGCCTCGTCCACTCCGCGGTCTGGGCCTGA
TGGTTCTACCTGCTGTGAGCTGCCAGTGGGAAGTATGGCTGCTGCCATGCCAACGCCACCTGCTGCT
CCGATCACCTGCACTGCTGCCCAAGACACTGTGTGACCTGATCCAGAGTAAGTGCCTCTCCAAGGAGA
ACG

11730-1

GAATCACCTTCTGGTTAGCTAGTACTTGTACAGAACATGAGGTTCCCACAGCGGAGTCTCCCTGGGC
TCTGTTGGCTCGTAAGGCAGGCCTACACCTTCTCTCTATGGAGAGGGAAATATGCATTAAG
GTGAAAAGTCACCTCCAAAAGTGAGAAAGGGATTGATTGCTCAGGACTGTGGAATTATTGGAATG
TTTACAAATGGTTGCTACAAAACAACAAAAAGGTAATTACAAAATGTGTACATCACAACATGCTTTAAA
GACATTATGCATTGTGCTCACATTCCCTAAATGTTGTTCCAAGGTGCTCAGCCTCTAGCCCAGCTGGAT
TCTCCGGGAAGAGGCAGAGACAGTTGGCGAAAAAGACACAGGGAAGGAGGGGTGGTGAAGGGAGAAA
GCAGCCTTCCAGTTAAAGATCAGCCCTCAGTTAAAGGTAGCTTCCCGCAXGCTGGCCTCAXGCGGAGTCT
GGGTAGAGGGAGGAGCAGCAGCAGGGTGGACTGGGCGT

11730-2

AACCGGAGCGCAGCAGTAGCTGGGTGGGACCATGGCTGGGATCACCACTCGAGGCGGTGAAGCGC
AAGATCCAGGTTCTGCAGCAGCAGGAGATGATGCAGAGGAGCGAGCTGAGCGCCTCCAGCGAGAAGTT
GAGGGAGAAAGGCAGGGCCGGAACAGGCTGAGGCTGAGGTGGCCTCCTGAACCGTAGGATCCAGCTG
GTTGAAGAAGAGCTGGACCGTGCTCAGGAGCGCCTGGCCACTGCCCTGCAAAGCTGGAAGAAGCTGAAA
AAGCTGCTGATGAGAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCCTAAAAGATGAAGAAAAGATG
GAACCTCAGGAAATCCAACCAAAGAAGCTAACGACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGT
GGCTCGTAAGTTGGTGTACATTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGGCAGAGTCC
CGTTGCCAGAGAGATGGATGAGCAGATTAGACTGATGGACCAAGACCTGAAGTGTCTGAGTGC

Fig. 15C

11732.1contig

GAGAACTTGGCCTTATTGTGGGCCAGGAGGGACAAAGGTCAAGGAGGCCAAGGGAGGGATCTGGTT
TCTGGATAGCCAGGTATAGCATGGGTACAGTAGGAATCCGCTGTAGCTGCACAGGCCACTTGCTGCA
GTTCCGGGGAGAACACCTGCACTGCATGGCGTTGATGACCTCGTGGTACACGACAGAGCCATTGGTGCAG
TGCAAGGGCACGCGCATGGGCTCCGTCTCGAGGGCAGGCAGCAGGAGCATTGCTCTGCACATCCTCG
ATGTCATGGAGTACACAGCTTGCTGGCACACTTCCCTGGCAGTAATGAATGTCCACTCCTCTGGGAC
TTACAATCTCCCACCTTGATGTACTGCACCTGGCTGTGATGTTGCAATCAGGCTCCTCACATGTGTC
CAGCAGGTGCCCTGGAATTTCACGATTTGCCTCAGCCAGACACTGTGTTCATCAAATGGTGGGCA
GCCCGTGACCCCTTCTCCCAGATGTACTCTCCTCT

11732.2contig

GCCTGGACCTTGCCTGGATCAGTGCACACAGTGACTTGCTGGCAAATGGCCAGACCTGCTGCAGAGTC
ATCGTGTCAATTGTGACCATGGACCCCCGGCCTCATGTGCCAACAGCCAGTCTCTGTTGGGTGGAGGA
GACGTGTGGCTGCCGCTGGACCTGCCCTTGTGTGACGGGAGTTCCACTCGGCACATCGTCACCTTC
GATGGGCAGAAATTCAAGCTTACTGGTAGCTGCTCTATGTCATCTTCAAAACAAGGAGCAGGACCTGGA
AGTGCCTCCACAATGGGGCCTGCAGCCCCGGGGCAAACAGCCTGCATGAAGTCCATTGAGATTAAAG
CATGCTGGCGTCTGCTGAGCTGCACAGTAACATGGAGATGGCAGTGGATGGAGACTGGCCTTGCCC
CGTACGTTGGTAAAACATGGAAGTCAGCATCTACGGCGCTATCATGTATGAAGTCAGGTTACCATTTG
GCCACATCCTCACATACACGCCXAAAACAACGAGTT

11735-1-2

AGATCAACCTCTGCTGGTCAGGAGGAATGCCTCCTGTCTGGATTTGCTTGACGTTCTCGATAGTRW
CAaCTKKRYSRAMSKMAAGKGYRATGRWMTTKSYWGRASYKTMWWMRSGRARAYTTaGaCAYCCCMC
CTCWgAGaCGSAGKACCARGTGCAGAgGTGGACTCTTCTGGATGTTGAGTCAGACAGGGTGCCTCCATC
TTCCAGCTGTTCCCAGCAAAGATCAACCTCTGCTGATCAGGAGGGATGCCTCCTATCTGGATCTTG
CTTGACATTCTCGATGGTGTACTGGGCCACCTCGAGGGTGTGAGGTCTTACAGTCAGGGTCTTCACGA
AGATYTGCATCCCACCTCTGAGACGGACCCAGGTGCAGGGTRGACTCTTCTGGATGTTGAGTCAGAC
AGGGTGCYCCATCTTCCAGCTGcTTCCSaGCAAAGATCAACCTCTGCTGGTCAGGAGGRATGCCTCCT
TGTCTGGATCTTGCYTTGACRTTCTCRATGGTGTACTCGGCTCCACTCGAGAGTGTGATGGTCTTACCA
TCAGGGTCTCACGAAGATCTGCATCCCACCTCTAA

11740.2.contig

AAGTCACAAACAGACAAAGATTATTACCAAGCTGCAAGCTATATTAGAAGCTGAACGAAGAGACAGAGGTCA
GATTCTGAGATGATTGGAGACCTTCAGCTGAATTACATCTTACAAGAGGGTGAAGCATCTAAACAT
AATCTGAAAAAGTGGAGGAGAAAGAAAAGAGGGCTCAAGACATGCTTAATCACTCAGAAAAGGAAAAGAA
TAATTAGAGATAGATTAAACTACAAACTAAATCATTACAACAACGTTAGAACAAAGAGGTAAATGAACAC
AAAGTAACCAAAGCTGTTAAGTCAACATCAATCTATTGAAGAGGCAAAGTCTGGCAATGTGTGAG
ATGAAAAAAAGCTGAAAGAAGAAAGAGAGCTCGAGAGAAGGGCTGAAAATCGGTTGTCAGATTGAGAA
ACAGTGTCCATGCTAGACGTTGATCTGAAGCAATCTCAGCAGAAACTAGAACATTGACTGGAAATAAAGA
AAGGATGGAGGGATGAAGTTAAGAATCTA

Fig. 15D

11765.2&64.2.contig

CGCCTCCACCATGTCCATCAGGGTACCCAGAAGTCCTACAAGGTGCCACCTCTGGCCCCGGCCTTC
AGCAGCCGCTCCTACACGAGTGGCCCGTCCCGCATCAGCTCCTCGAGCTCTCCGAGTGGCAGCA
GCAACTTCCGGTGGCCTGGCGCGCTATGGTGGGCCAGCGGATGGAGGCATACCGCAGTTA
CGGTCAACCAGAGCCTGCTGAGCCCCCTGTCCTGGAGGTGGACCCAAACATCCAGGCCGTGCGCACCC
AGGAGAAGGAGCAGATCAAGACCCCAACAACAAGTTGCCCTCATAGACAAGGTACGGTCTGGAG
CAGCAGAACAGATGCTGGAGACCAAGTGGAGCCTCTGCAGCAGCAGAACAGCAGCTGAAGCAACATGG
ACAACATGTCAGAGACTACATCAACARCCCTAGGCCAGCTGGAGACTCTGGCCAGGAGAACGCTGA
GCTGGAGGCCAGCTGGCAACATGCAGGGCTGGTGGAGGACTTCAAGAACAGTATGAGGATGAGATC
AATAAGCGTACAGAGATGGAGAACGAATTGTCCTCATCAAGAAGGATGTGGATGAAGCTTACATGAACAA
GGTAGAGCTGGAGTCTGCCTGGAAAGGGCTGACCGACGAGATCAACTCCTCAGGCAGCTGTATGAAGAG
GAGATCCGGAGCTGCAGTCCCAGATCTGGACACATCTGTTGCTGTCCATGGACAACAGCCGCTCCC
TGGACATGGACAGCATCATTGCTGAGGTCAAGGCACAGTACGAGGATATTGCCAACCGCAGCCGGCTGA
GGCTGAGAGCATGTACCAAGGTCAAGTATGAGGAGCTGAGCAGCCTGGCTGGGAAGCACGGGATGACCT
GCGCGCACAAAGACTGAGATCTGAGATGAACCCGGAACATCAGCCGGTXCAGGCTGAGATTGAGG
GCCTCAAAGGCCAGAXGGCTXCCCTGGAXGCCAT

11767.2.contig

CCCGGAGCCAGCCAACGAGCGAAAATGGCAGACAATTTCGCTCCATGATGCGTTATCTGGGTCTGGAA
ACCCAAACCTCAAGGATGGCCTGGCGATGGGGAAACCAGCCTGCTGGGCAGGGGGCTACCCAGGG
GCTTCCTATCCTGGGGCTACCCGGCAGGCACCCCAAGGGCTTATCCTGGACAGGCACCTCCAGGC
GCCTACCCCTGGAGCACCTGGAGCTTATCCGGAGCACCTGCACCTGGAGTCTACCCAGGGCCACCCAGC
GGCCCTGGGGCTACCCATCTTGGACAGCCAAGTGCACCCGGAGCCTACCCGCCACTGGCCCCTATG
GCGCCCCTGCTGGGCCACTGATTGTCCTTATAACCTGCCCTTGCCTGGGGAGTGGTGCCTCGATGCT
GATAACAATTCTGGGACGGTGAAGCCCAATGCAAACAGAATTGCTTAGATTCCAAGAGGGAATGATGT
TGCTTCCACTTAACCCACGCTCAATGAGAACACAGGAGAGTATTGGTGAATACAAGCTGGATAA

11768-1&2

GGGAATGCAACAACTTATTGAAAGGAAAGTCAATGAAATTGTTGAAACCTAAAAGGGAAACTAGAC
ACCCCCCCTCRAgCGMAGKACCAGTGCARAgGTGGACTTTCTGGATGTTAGTCAGACAGGGTRCG
WCCATCTTCCAGCTGTTYCCRGCAAAGATCAACCTCTGCTGATCAGGAGGRATGCCCTCCTTATCTTGG
TCTTGCCTTGACATTCTCGATGGTGTACTGGCTCCACCTCGAGGGTGTGGTCTTACAGTCAGGT
TTCACGAAGATYTGCATCCCACCTCTGAGACGGAGCACCAGGTGCAGGGTRGACTCTTCTGGATGTTGA
GTCAGACAGGGTGCYCCATCTCCAGCTGcTTCCSaGCAAAGATCAACCTCTGCTGGTCAGGAGGRATG
CCTTCCCTGTCYTGGATCTTGCYTTGACRTTCTCAATGGTGTACTCGGCTCACCTCGAGAGTGTGGTC
TTACCAAGTCAGGGTCTTACGAAGATCTGCATCCACCTCTAAGACGGAGCACCAGGTGCAGGGTGGACT
CTTCTGGATGgTTGTAGTCAGACAGGGTGCCTCATCTTCCAGCTGTTCCAGCAAAGATCAACCT

11768-1&2-11735-1&2

AGGTTGATCTTGCTGGAAACAGCTGGAAGATGGACGCACCCGTCTGACTACAAcCATCCAGAAAGAGT
CCACCCCTGCACCTGGTGCTCCGTCTAGAGGTGGATGCAGATCTCGTGAAGACCCGTACTGGTAAGAC
CATCACTCTCGAAGTGGAGGCCAGTGACACCATTGAGAAYGTCAARGCAAAGATCCARGACAAGGAAGGC
ATYCCTCCTGACCAGCAGAGGTTGATCTTGCTSGGAAAgCAGCTGGAAGATGGRCGCACCCGTCTGACTA
CAACATCCAGAAAGAGTCYACCCCTGCACCTGGTGCTCCGTCTAGAGGTGGATGCARATCTCGTGAAGA
CCCTGACTGTAAGACCATCACCCTCGAGGTGGAGGCCAGTGACACCATTGAGAATGTCAAGGCAAAGAT
CCAAGATAAGGAAGGCATCCCTCCTGATCAGCAGAGGTTGATCTTGCTGGAAACAGCTGGAAGATGGAC
GCACCCCTGACTACAAACATCCAGAAAGAGTCACCTGAGGTTGATCTTGCTGGAAACAGCTGGAAGATGGAC
caaATCTWMGKWWagaCaCtCaCTKYYAAGRYYaTCAMCMWtgAKKTCgAKYSCASTKWWCaCTWTCRAKAAMGT
YRWWGCAWagaTCCMAGACAAGGAAGGCATTCCCTGACCAGCAGAGGTTGATCT

11769.1.contig

ATGGAGTCTCACTCTGTCGACCAGGCTGGAGCGCTGTTGCGATATCGGCTCACTGCAGTCTCCACTTC
CTGGGTTCAAGCGATCCTCCTGCCTCAGCCTCCGAGTAGCTGGACTACAGGCAGGCGTACCCATAATT
TTGTTAGAGACATGGTTGCCATGTTGGCTGGCTGGTCTCGAACCTGACCTCAAGTGATC
TGTCTGGCCTCCAAAGTGTGGGATTACAGGCCAACGCTCCGGCCAGGGAACAACTTAA
ATGAAGGAAATATGCAAAGAACATCACATCAAGGATCAATTAAATTACCATCTATTAAATTACTATGTGGGT
AATTATGACTATTCCTAACGATTCTACGTTGACTGCTTGAGAAGATGTTGTCTGCATGGTGAGAGTGG
AGAAGGGCCAGGATTCTAGGTT

11769.2.contig

AGCGCGGTCTCCGGCGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCGTT
GAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAA
GCTGCAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCAGGCCATGAAGGATGAGGAGAACAGATGG
AGATTCAAGGAGATGCAGCTCAAAGAGGCCAACGCACATTGCGGAAGAGGGCTGACCGCAAATCGAGGAGGT
AGCTCGTAAGCTGGTCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCAGGAGGTCTGA
AAAATGTGGTACCTGGAAAGAAGAACTCAAGAATGTTACTAACATCTGAAATCTGGAGGCTGCATCTGA
AAAGTATTCTGAAAAGGAGGACAATATGAAGAAGAAATTAAACTCTGTCTGACAAACTGAAAGAGGCTGA
GACCCGTGCTGAATTGCAGAGAGAACGGTTGCAAAACTGGAAAGACAATTGATGACCTGGAAGAGAAC
TTGCCAGC

11770.1.contig

GTGCACAGGTCCCATTATTGTAGAAAATAATAATTACAGTGATGAATAGCTCTTAAATTACAAAC
AGAAACCACAAAGAAGGAAGAGGAAAAACCCAGGACTTCCAAGGGTGAAGCTGTCCTCCCTGCC
ACCCTCCCAGGCTCATTAGTGTCTGGAAAGGGGCAGAGGACTCAGAGGGGATCAGTCTCCAGGGGCC
GGGCTGAAGCGGGTGAGGCAGAGAGTCTGAGGCCACAGAGCTGGCAACCTGAGCCCTCTGGCC
CCCTCCCCCACCCTGCCAAACCTGTTACAGCACCTGCCCTCCCTCTAAACCCGTCCATCCACTC
TGCACCTCCCAGGCAGGTGGTGGGCCAGGCCTCAGCCATACTCCTGGCGCGGGTTCGGTGAGCAAG
GCACAGTCCCAGAGGTGATATCAAGGCCT

11770.2.contig

GCAAGGAACGGTCTGCTCACACTGCTGGCTTGCATCAGGACTGGCTTATCTCCTGACTCACGGTGC
AAAGGTGACTCTCGAACGTTAAGTCCGCCCCAGCGCTTGAATCCTACGGCCCCACAGCCGGATCC
CCTCAGCCTCCAGGTCTCAACTCCCGTGGACGCTGAACAATGGCCTCCATGGGCTACAGGTAATGGG
CATCGCGCTGGCGTCTGGGCTGGCTGGCGCTCATGCTGTGCTGCCTGCCCCATGTGGCGCGTGAC
GGCCTTCATCGGCAGCAACATTGTCACCTCGCAGACCATCTGGGAGGGCTATGGATGAACGTGCTGGTG
CAGAGCACCGGCCAGATGCAGTCAAGGTGTACGACTCGCTGCTGGCACTGCCGCAGGACCTGCAGGCC
GCCCGGCCCTCGTCATCATCA

11773.1.contig

TGCAAAAGGGACACAGGGTTCAAAATAAAATTCTCTTCCCCCTCCCCAAACCTGTACCCCAGCTCCC
CGACCACAACCCCCTCCCTCCCCGGGAAAGCAAGAAGGAGCAGGTGTCAGCTGGGAAGA
GAGAGGCCGGGGAGGTGCCGAGCTGGTCTGGTCTTTCCAAATATAAACTXTGTGTAGAACTGGA
AAATCCTCCAGCACCCACCACCAAGCACTCTCCGTTCTGCCGGTGTGGAGAGGGCGGGGGCAG
GGCGCCAGGCACCGGCTGGCTGCCGTTACTGCATCCGCTGGGTGTGCACCCCGCAGCCTCTGCTG
CTCATTGTAGAAGAGATGACACTGGGGTCCCCCGGATGGTGGGGCTCCCTGGATCAGCTCCGGTG
TTGGGGTTCACACACCAGCACTCCCCACGCTGCCGTTAGAGACATCTGCACTGTTGAGGTTGACAG
GCCATGCTTGTACAGTTG

11778.1.contig

GGGTTGGAGGGACTGGTTCTTATTCAAAAAGACACTTGTCAATATTCAAGTATCAAAACAGTTGCACTATTG
ATTCTCTTCTCCAAATCGGCCAAAGAGACCACTAAAGGGAGAGTACATTAAAGCCAATAAGCTGCA
GGATGTACACCTAACAGACCTCTAGAAACCTTACCAAGAAAATGGGACTGGTAGGGAAAGGAAACTTAA
AGATCAACAAACTGCCAGCCACGGACTGCAGAGGCTGTACAGCCAGATGGGTGGCCAGGGTGCCAC
AAACCAAAGCAAAGTTCAAATAATAAAATTAAAAAGTTTGACATAAGCTATTCAAGATTCTCCAG
CACTGACTGATAAAAGCACAATTGAGATGGCACTCTAGAGACAGCAGCTCAAACCCAGAAAAGGGTGA
TGAGATGAGTTACATGGCTAAATCAGTGGCAAAACACAGTCTTCTTCTTCAAGGAGGCA
GGAAAGCAATTAGTGGCACCTAACATAAGGGGACATGATCCATTGTAAAGCAGTTGTGAAGGGG

11778-2&30-2

CAGGAACCGGAGCGCGAGCAGTAGCTGGTGGCACCATGGCTGGATCACCACCATCGAGGCGGTGAA
GCGCAAGATCCAGGTTCTGCAGCAGCAGGAGATGATGCAGAGGAGCGAGCTGAGCGCTCCAGCGAGA
AGTTGAGGGAGAAAGCGGGCCGGAAACAGGGCTGAGGCTGAGGTGGCCTCTGAACCGTAGGATCCA
GCTGGTTGAGAAGAGCTGGACCGTGCTCAGGAGCGCTGGCACTGCCCTGCAAAAGCTGGAGAAGCT
GAAAAAGCTGCTGATGAGAGTGGAGAGAGGTATGAAGGTTATTGAAAACGGGCTTAAAGATGAAGAAA
GATGGAACTCCAGGAAATCCAACCTAAAGAAGCTAACATTGCAGAAGAGGCAGATAGGAAGTATGAAG
AGGTGGCTCGTAAGTGGTGTACATTGAAGGGAGACTGGAACGACAGAGGAACGAGCTGAGCTGGCAGA
GTCCCGTTGCCGAGAGATGGATGAGCAGATTGACTGATGGACCAGAACCTGAAGTGTCTGAGTGC

11782.1.contig

ATCTACGTCATCAATCAGGCTGGAGACACCATGTTCAATCGAGCTAAGCTGCTCAATATTGGCTTCAGAG
GCCTTGAAGGACTATGATTACAACCTGCTTGTGTTCACTGATGTGGACCTATTCCGATGGACGACCGTAAT
GCCTACAGGTGTTTGCAGGCCACGGCACATTCTGTTGCAATGGACAAGTCGGGTTAGCCTGCCATA
TGTTCACTGTTGGAGGTGTCTGCTCTCAGTAAACAACAGTTCTGCCATCAATGGATTCCCTAATAAT
TATTGGGGTTGGGGAGGAGAAGATGACGACATTAAACAGATTAGTCATAAAGGCATGTCTATACGT
CCAAATGCTGTAGTAGGGAGGTGCGAATGATCCGGCATTCAAGAGACAAGAAAAATGAGCCCACCTCA
GAGGTTGACCGGATCGCACATACAAAGGAAACGATGCGCTCGATGGTTGAACTCACCTACACAAGG
TGTGGATGTCAGAGATAACCGTTATACCCAAATCAC

11782.2.contig

CTAGACCTCTAATTAAAAGGCACAATCATGCTGGAGAATGAACAGTCTGACCCGAGGGCCACAGCGAATT
TTAGGGAAAGGAGGCAAAGAGGTGAGAAGGGAAAGGAAAGGAAGGAAGGAGAACATAAGAACTGGA
GACGTTGGGTGGGTCAAGGAGGTGTTGGAGGCTGGAGAGATGGTAACAAACCTGACTGCTATGAGTT
TTCAACCCCCATAGTCTAGGGCCATGAGGGCGTCAGTTCTGGTGGCTGAGGGCCTCCACCCAGCCCAC
CTGGGGGAGTGGAGTGGGAGTTCTGCCAGGTAAAGCAGATGTTCTCCCAAGTTCCTGACCCAGATGTC
TGGCAGGATAACGCTGACCTGTTCCCTCAACAAGGGACCTGAAAGTAATTGCTCTTAC

11783-1 & 2

CCGAATTCAAGCGTCAACGATCCYCCCTTACCATCAAATCAATTGGCCACCAATGGTACTGAACCTACGAG
TACACCGACTACgGGCGGACTAATCTTCAACTCCTACATACTTCCCCATTATTCCCTAGAACCGAGGCGACCT
GCGACTCCTTGACGTTGACAATCGAGTAGTACTCCGATTGAAGCCCCATTCTGTATAATAATTACATCACA
AGACGTCTGCACTCATGAGCTGCCCCACATTAGGCTAAAAACAGATGCAATTCCGGACGTCTAAGCC
AAACCACTTCACCGCTACACGACCGGGGTATACTACGGTCAATGCTCTGAAATCTGGAGCAAACAC
AGTTTCACTGCCATGTCCTAGAATTAAATTCCCTAAAAATCTTGAAATAGGGCCGTATTACCCCTATAGC
ACCCCTCTACCCCTCTAG

11786.1.contig

GCTCTTCACACTTTATTGTTAATTCTCTTACATGGCAGATACAGAGCTGTCGTCTGAAGACCACCACTGA
CCAGGAAATGCCACTTTACAAATCATCCCCCTTTCATGATTGAAACAGTTCTGACCGTCTGGAG
CGTTGAAGGGTGACCAGCACATTGCACATGCAAAAAGGAGTGACCCCAAGGCCTCAACCACACTTCCA
GAGCTCACCATGGGCTGCAGGTGACTGCCAGGTTGGGTTCTGAGCTTCTGCTGCTGCGGTGG
GAGGCCCTCAAGAACTGAGAGGCCGGGTATGCTTCATGAGTGTAACTTACGGGACAAAGCGCATCA
TTAGGATAAGGAACAGCCACAGCACTCATGCTTGAGGGTTAGCTGTAGGAGCGGGTAAAGGATTCCA
GTTTATGAAAATTAAAGCAAACAACGGTTTTAGCTGGTGGAAACAGGAAAACGTGATGTGGCCAAT
GACCACCATTTCTGCCATGTGAAGGTCCCCATGAAACC

Fig. 15H

11786.2.contig

CAAGCGCTTGGCGTTGGACCCAGTCAGTGAGGTTCTGGGTTTGTGCCTTGGGATTTGGTTGAC
CCAGGGGTAGCCTAGGAAGGTCTTCAGGAGGAGGCCAGTCCCTCAGTACCAACCCCTCTCCCC
ACTTCCCTCTCCGGCAACATCTGGAAATCAACAGCATATTGACACGTTGGAGGCCAGCCTGAACATG
CCCCTCGGCCAGCACATGGAAACCCCTCCTGCCTAAGGTGTCTGAGTTCTGGCTCTGAGGCAT
TTCCAGACTGAAATTCTCATCAGTCATTGCTCTGAGTCAGAGAACCTCAGATCAGGTGCACCTG
GGAGAAAGACTTGTCCCCACTACAGATCTATCCTCCCTGGGAAGGGCAGGGATGGGACGGTGT
ATGGAGGGGAAGGGATCTCCTGCGCCCTCATTGCCACACTGGTGGGACCATGAACATCTTAGTGTCTG
AGCTTCTCAAATTACTGCAATAGGA

13691.1&2

AGCGTCAAATCAGAATGGAAAAGACTCAAACCATCATCAACACCAAGATCAAAGGACAAGRATCCTCAAG
AAACAGGAAAAAAACTCCTAAAACACCAAAAGGACCTAGTCTGTAGAAGACATTAAGCAAAATGCAAGCAA
GTATAGAAAAGGTGGTCTCTCCCAAAGTGGAGGCCAATTCAATTATGTGAAGAATTGCTCCGGAT
GAUTGACCAAGAGGCTATTCAAGATCTCTGGCAGTGGAGGAAGTCTCTTAAGAAAATAGTTAAACAATTG
TTAAAAAAATTTCGTCTTATTCTATTCTGTAAACAGTTGATATCTGGCTGTCTTTATAATGCAGAGTGAGA
ACTTCCCTACCGTGTGATAATGTTGCCAGGTTCTATTGCCAAGAATGTTGTCCAAAATGCTGTTA
GTTTTAAAGATGGAACTCCACCCCTTGCTGGTTAAGTATGTATGGAATGTTATGATAGGACATAGTAGTA
GCGGTGGTCAGACATGGAAATGGTGGSMGACAAAATACATGTGAAATAA

13692.1&2

TCCGAATTCCAAGCGAATTATGGACAAACGATTCTTTAGAGGATTACTTTTCAATTGGTTTAGTAAT
CTAGGCTTGCCTGAAAGAATACACGATGGATTAAATACTGTTGGAATGTTAAAGGATTGATT
CTAGAACCTTGTATATTGATAGTATTCTAACCTTCATTCTTACTGTTGCAGTTAATGTTCATGTTCTGC
TATGCAATCGTTATATGCACGTTCTTAATTAGATTTCCTGGATGTATAGTTAAACAACAAAAG
TCTATTAAAAGTGTAGCAGTAGTTACAGTTAGCAAAGAGGAAAGTGTGGGTTAAACTTGTATTTC
TTCTTATAGAGGCTCTAAAAGGTATTAAATGTTCTTTAACAAATATTGTGTACAACCTTAAACAT
CAATGTTGGATCAAAACAAGACCCAGCTTATTCTGC

13693.2

TGTGGTGGCGCGGGCTGAGGTGGAGGCCAGGACTCTGACCCCTGCCCTGCCTCAGCAAGGCCCCGG
CAGCGCCGGCCACTACGAACCTGCCGTGGTTGAAAATATAGGCCAGTAAAGCTGAATGAAATTGTCGGG
AATGAAGACACCGTGAGCAGGCTAGAGGTCTTGCAAGGGAAAGGAAATGTGCCAACATCATCATTGCGG
GCCCTCCAGGAACCGGCAAGACCACAAGCATTCTGTCTGGCCGGCCCTGCTGGGCCAGCACTCAA
AGATGCCATGTTGGAACTCAATGCTCAAATGACAGGGCATTGACGTTGTGAGGAATAAAATTAAAATGTT
TGCTCAACAAAAGTCACTCTTCCAAAGGCCGACATAAGATCATCATTCTGGATGAAGCAGACAGCATGAC
CGACGGAGGCCAGCAAGCCTTGAGGAGAACATGGAAATCTACTCTAAACCACTGTTGCCCTGCTG
TAATGCTTGGATAAGATCATCGAGCC

13696.1-13744.1

CTTGCAAAGCTTTATTCATGTCTGGCATGGAATCCACCTGCACATGGCATCTTAGCTGTGAAGGGAGA
AAGCAGTGCACGAGAAGGAATGAGTGGCGGAACCAACGGCCTCCACAAGCTGCCTCCAGCAGCCTGC
CAAGGCCATGGCAGAGAGAGACTGCAAACAAACACAAGCAAACAGAGTCTTCACAGCTGGAGTCTGAAA
GCTCATAGTGGCATGTGAATCTGACAAAATTAAAAGTGTGCATAGTCATTACATGCATAAAACACTAATA
ATAATCCTGTTACACGTGACTGCAGCAGGCCAGCTCCACCACTGCCCTCTGCCACATCACATCA
AGTGCCATGGTTAGAGGGTTTCATATGTAATTCTTTATTCTGAAAAGGTAACAAAATACAGAACAA
AACTTCCCTTTAAAACATGTTACAAATCTGTATTACTGGATATAATAGTATATAAGCTGATC

13700.1

CAAGGGATATATGTTGAGGGTACRGRGTGACACTGAACAGATCACAAAGCACGAGAACATTAGTTCTCTC
CCTCCCCAGCGTCTCCTCGTCTCCCTGGTTTCCGATGTCACAGAGTGGAGATTGTCCTTAAGTAACTGC
ATGATCAGAGTGCTGKCTTATAAGACTCTCATTAGCGTATCCAATTAGCAATTGCTTCATCAAATGCCG
TTTTGCCAGGCTACAGGCCTTCAGGAGAGTTAGAATCTCATAGAAAAGACTGAGAAATTAGTGCCA
GACCAAGACGAATTGGGTGTGAGGCTGCATTNCTTCTTAATTCAAATGCTTCTGGTAAGCCTGCT
GGGAGTTGACACAAAGTGGTTGTTGCTCCAGATGCCACTTCAGAAAGATACTAAAATCTCCTT
TCATTTCAAAGTAGAACAC

13700.2

TCCGGAGCCGGGTAGTCGCCGCCGCCGCCGCCGCAGCCACTGCAGGCACCGCTGCCGCCGCTG
AGTAGTGGCTTAGGAAGGAAGAGGTATCTCGCTCGAGCTCGCTCGGAAGGGTCTTGTCCCTGCA
GCCCTCCCACGGGAATGACAATGGATAAAAGTGGAGCTGGTACAGAAAGCCAAACTCGCTGAGCAGGCTGA
GCGATATGATGATATGGCTGCAGCCATGAAGGCAGTCACAGAACAGGGCATGAACTCTCAACGAAGAG
AGAAATCTGCTCTGTTGCCTACAAGAATGTGGTAAGGCCGCCGCTCTCCTGGCGTGTATCTCC
AGCATTGAGCAGAAACAGAGAGGAATGAGAAGAAGCAGCAGATGGCAAAGAGTACCGTGAGAAGATAG
AGGCAGAACTGCAGGACATCTGCAATGATGTTCTGGAGCTTGGACAAATATCTTATTCAAATGCTACAC
AACCCAGAAA

13701.1

AAAAAGCAGCARGTTAACACAAAATAGAAATCTAAATGTAGGATAGAACAAAACCAAGTGTGAGGGG
GGAAGCAACAGCAAAAGGAAGAAATGAGATGTTGCAAAAAGATGGAGGAGGGTCCCTCTCCTCTGGG
GACTGACTCAAACACTGATGTGGCAGTACACCAATTCCAGAGTCAGGGGTGTTCTTGGAGGTA
AGAAAAGGTGGGGATTAAGAAGACGTTCTGGAGGCTAGGGACCAAGGCTGGCTCTTCCCCCTCCCA
ACCCCTTGATCCCTTCTGATCAGGGAAAGGAGCTGAATGAGGGAGGTAGAGTTGGAAAGGGAAA
GGATTCCACTTGACAGAACAGACTCCTCCCA

13701.2

TGGCAATAGCACAGCCATCCAGGAGCTTCARGCGATCTGGAGCAGTTCACTGCCATGTTCCGCCGG
AAGGCCTTCTCCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGGTTCACCGAGGCTGAGAGCAACA
TGAACGACCTCGTCTGAGTATCAAGCAGTACCAAGGATGCCACCGCAGAAGAGGAGGAGGATTCGGTG
AGGAGGCCGAAGAGGAGGCCTAAGGCAGAGCCCCCATCACCTCAGGCTCTCAGTTCCCTAGCCGTCTT
ACTCAACTGCCCTTCCCTCCCTCAGAATTGTGTTGCTGCCTCTATCTGTTTTGTTTTCTCTGG
GGGGTCTAGAACAGTGCCTGGCACATAGTAGGCCTCAATAAATCTGGTTGNTGAATGTCTCCT

13702.2

AGCTGGCGCTAGGGCTGGTTGTGAAATACAGCGTRGTCAAGCCCTTGCCTCAGTGTAGAAACCCACGCC
TGTAAGGTGGTCTCGTCCATCTGCTTTCTGAAATACACTAAGAGCAGCCACAAAATGTAACCTCAA
GGAAACCATAAAGCTGGAGTGCCTTAATTTAACAGTTCCAATAAACGGTTACTACCT

13704.2-13740.2

GGAGATGAAGATGAGGAAGCTGAGTCAGCTACGGCARGCGGGCAGCTGAAGATGATGAGGATGACGAT
GTCGATACCAAGAACAGAACGACGAGGATGACTAGACAGCAAAAAGGAAAAGTTAAA

13706.1

GATGAAAATTAATCTAAATTAAATCAAAAGGCACTACGATACCACTAAACCTACTGCCTCAGTGGCAGT
AKGCTAAKGAAGATCAAGCTACAGSACATYATCTAATATGAATGTTAGCAATTACATAKCARAGAACATGTT
GCTTCCAGAAGACTATGGNACAATGGTCAATTGGGCCAAGAGGATATTGCCNGGAAAGGATCAAGA
TAGATNAANGTAAAG

13706.2

GAGTAGCAACGCAAAGCGCTTGGTATTGAGTCTGGGGGACTTCGGTCCGGTCTCGCAGCAGCCGTG
ATCGCTTAGTGGAGTCTAGGGTAGTTGGCCAGGATGCCGAATATCAAATCTCAGCAGGCAGCTCCCA
CCAGGACTTATCTCASAAAATTGCTGACCGCCTGGCCTGGAGCTAGGCAAGGTGGTACTAAGAAATTCA
GCAACCAGGAGACCTGTGAAAATTGGTGAAGTGTACCGTGGAGAGGATGTCTACATTGTTAGAGTGG
NTGGCGAAATCAATGACAATTAAATGGAGCTTTGATCATGATTAAATGCCTGCAAGATTGCTTCAGCCAG
CCGGGTTACTGCAGTCATCCCATGCTCCCTATGCCCGGCAGGATAAGAAAGATNAGAGCCGGGCCGC
CAATCTCAGCCAAGCTTGGTCAAATATGCTATCTGTAGCAGTCAGATCATATTACCATGGACCTACA
TGCTCTCAAATTCAANGCTTTT

Fig. 15K

13707.3

ATGCAAAAGGGACACAGGGGTTCAAAAATTTCTTCCCCCTCCCCAACCTGTACCCAGCT
CCCCGACCACAACCCCTCCTCCCCGGGGAAAGCAAGAAGGAGCAGGTGTGGCATCTGCAGCTGGGA
AGAGAGAGGCCGGGGAGGTGCCGAGCTCGGTGCTGGTCTTTCAAATATAAACAGTGTGTCAGAACT
GGAAAATCCTCCAGCACCCACCACCAAGCACTCTCCGTTTCTGCCGGTGTGGAGAGGGCGGNGGG
CAGGGCGCCAGGCACCGCTGGCTCGGTCTACTGCATCCGCTGGGTGTGCACCCCGCGA

13710.2

AGGTTGGAGAAGGTATGCAGGTGCAGATTGTCCAGGSKAGCCACAGGGTCAAGCCAACAGGCCAGA
GTGGCACTGGACAGACCATGCAGGTATGCAGCAGATCATCACTAACACAGGAGAGATCCAGCAGATCCC
GGTGCAGCTGAATGCCGCCAGCTGCAGTATATCCGTTAGCCCAGCCTGTATCAGGCAGTCAAGTTGTG
CAGGGACAGATCCAGACACTGCCACCAATGCTAACAGATTACACAGACAGAGGTCCAGCAAGGACAGC
AGCAGTTCAAGCCAGTTACAAGATGGACAGCAGCTTACCAAGATCCAGCAAGTCACCATGCCTGCCGGC
CANGACCTGCCAGCCATGTTCATCCAGTCAAGCCAACCAGCCCTCNACGGCAGGCCCCCAGGTGA
CCGGCGACTGAAGGGCTGAGCTGGCAAGGCCAANGACACCCAACACAATTGGCCATACAGCCCCCAG
GCAATGGCACAGCCTTCTCCCAGAGGAC

13710-1

TGAGATTTATTGCATTCATGCAGCTGAAGTCCATGCAAAGGRGACTAGCACAGTTTAATGCATTTAAAA
AATAAAAGGGAGGTGGCAGCAAACACACAAAGTCCTAGTTCTGGTCCCTGGGAGAAAAGAGTGTGG
CAATGAATCCACCCACTCTCCACAGGGATAAAATCTGTCTCTAAATGCAAAGAATGTTCCATGGCCTCTG
GATGCAAATACACAGAGCTCTGGGGTCAAGAGCAAGGGATGGGGAGAGGACACGAGTGAAAAGCAGCTA
CACACATTACCTAATTCCATCTGAGGGCAAGAACGTGGCAAGTCTGGGGTAGCAGCTGTT

13711.1

TCCAGACATGCTCCTGCTCTAGGCGGGGAGCAGGAACCAGACCTGCTATGGGAAGCAGAAAGAGTTAAGG
GAAGGTTCTTCTTCATTCTGTTCTCTTTGTTGAACAGTTAAATATACTAATAGCTAAGTCAT
TTGCCAGCCAGGTCCCGGTGAACAGTAGAGAACAGGAGCTGCTAAGAATTAAATTGCTGTTTCAACC
CATTCAAACAGAGCTGCCCTGTTCCCTGATGGAGTTCCATTCTGCCAGGGCACGGCTGAGTAACACGAAG
CCATTCAAGAAAGGCCGGTGTGAAATCACTGCCACCCCATGGACAGACCCCTCACTCTCCTCTAGCCG
CAGCGCTACTTAATAATATTATACTTGAAATTATGATAACCGATTTCATGCCATCCTAAGGG
CACTGCCAGCTTTATCCGGACAGTCAAGCACTGTTGGACAACAGATAAAGGAAAAGAAAAGAAGA
AAACAACCGCAACTCTGT

13711.2

TGAGACGGACCACTGGCCTGGCCCCCTCATKTGCTGTCGTAGGACCTGACATGAAACGCAGATCTAGT
GGCAGAGAGGAAGATGATGAGGAACCTCTGAGACGTCGGCAGCTCAAGAAGAGCAATTATGAAGCTTAA
CTCAGGCCTGGACAGTTGATCTGAAAGAAGAGATGGAGAAAGAGAGGCCGGAAAGGTATCTCTGTTA
GCCAGTCGCTACGATTCTCCATCAACTCAGCTTCACATATTCCATCATCTAAACTGCATCTCTCCCTGGC
TATGGAAGAAATGGGCTTCACCGGCCTTTCTACCGACTTCGCTCAGTATAACAGCTATGGGATGTCAG
CGGGGGAGTGCAGATTACCAAGACACTCCAGATGCCACATGCCTGCAATGAGAATGGACCGAGGAGTG
TCTATGCCAACATGTTGAAACCAAGATATTCCATATGAAATGCTATGGTACCAACAGAGGGCCGAAA
CCAAATCTCAGAGAGGTGGACAGAA

13713.1&2

TCACTTATTTCTTGTATAAAACCTATGTTGAGGCCACAGCTGGAGCCTGAGTCCGCTGCACGGAGAC
TCTGGTGTGGTCTTGACGAGGTGGTCACTGAACCTCTGATAGGGAGACTTGGTGAATACAGTCTCTTCC
AGAGGTCGGGGGTCAAGGTAGCTGTAGGTCTAGAAATGGCATCAAAGTGGCCTGGCGAAGTTGCCAG
GGTGGCAGTGCAGCCCCGGCTGAGGTGTAGCAGTCATCGATACCAGCCATCATGAG

13715.4

CTGGAATATAGACCCGTATCGACAAAACCTTGAAACGAGGCTGACTGTGCCACCGTCCGCCAGCCATTG
CTCCTACTGATGAGACAAGATGTGGTGTGACAGAAATCAGCTTTGTAATTATGTATAATAGCTCATGATGT
GTCCATGTCATACTGTCTTCATACGCTCTGCACCTGGGGAAAGAAGGAGTACATTGAAGGGAGATTGGC
ACCTAGTGGCTGGAGCTGCCAGGAACCCAGTGGCCAGGGAGCGTGGCACTTACCTTGTCCCTTGCTT
CATTCTTGTGAGATGATAAAACTGGCACAGCTTAAATAAAATATAATGAACA

13717.1&2

TGAATGGGAGGAGCTGACCCAGGAAATGGAGCTTGNNGAGACCAGGCCTGCAGGGGATGGAACCTTCC
AGAAGTGGCATCTGTTGGTGCCTCTGGAAAGGAGCAGAAGTACACATGCCATGTGGAACATGAGGG
GCTGCCTGAGCCCTCACCTGAGATGGGCAAGGAGGAGCCTCCTCATCCACCAAGACTAACACAGTA
ATCATTGCTTCCGGTTGTCCTTGGAGCTGTGGTACATCCTTGGAGCTGTGATGGCTTGTGATGAAGAG
GAGGAGAAACACAGGTGGAAAAGGAGGGACTATGCTCTGGCTCCAGGCTCCCAGAGCTCTGATATGTCT
CTCCAGATTGTAAGTGTGAAGACAGCTGCCCTGGACTTGGTACAGACAATGCTTCACACATCT
CCTGTGACATCCAGAGACCTCAGTTCTCTTAGTCAAGTGTCTGATGTTCCCTGTGAGTCTGCGGGCTCAA
GTGAAGAACTGTGGAGGCCAGTCCACCCCTGCACACCAGGACCTATCCCTGCACTGCCCTGTGTTCCCTT
CCACAGCCAACCTTGCCTGCTCCAGCAAACATTGGTGGACATCTGCAGCCTGTCAGCTCCATGCTACCCCTG
ACCTCAACTCCTCACCCACACTGAGAATAATAATTGAATGTGGTGGCTGGAGAGATGGCTCAGCGC
TGACTGCTCTCCAAAGGTCTGAGTTCAAATCCCAGCAACCACATGGTGGCTACAACCACATGTAAATGG
GATCTAATACCCCTTCTGCAGTGTCTGAAAGACASCTACAGTACTTACATATAATAATAAG

Fig. 15M

13719.1&2

GGCCGGGCGCGCGCCCCGCCACACGCACGCCGGCGTGCAGTTATAAAGGGAGAGAGCAAGCA
GCGAGTCTGAAGCTCTGTTGGTGCCTGGATCATTCCATCGGTCTTACAGCCGCTCGTCAGACTCC
AGCAGCCAAGATGGTGAAGCAGATCGAGAGCAAGACTGCTTTCAGGAAGCCTTGGACGCTGCAGGTGAT
AAACTTGTAGTAGTTGACTTCTCAGCCACGTGGTGGGCCTTGCAAAATGATCAAGCCTTCTTCATTCC
CTCTCTGAAAAGTATTCCAACGTGATATTCTTGAAGTAGATGTGGATGACTGTCAGGATGTTGCTTCAGAG
TGTGAAGTCAAATGCATGCCAACATTCCAGTTAAGAAGGGACAAAAGGTGGTGAATTCTGGAGCC
AATAAGGAAAAGCTGAAGGCCACCATTAATGAATTAGTCTAATCATGTTCTGAAAATATAACCAGCCATTG
GCTATTAAAACCTGTAATTCTTAATTACAAAATATAAAATGAAGACATAAACCCMGTGCCATCTGC
GTGACAATAAACATTAATGCTAACACTT

13721.1

TCACATAAGAAATTAGCAAGTTACRCTATCTTAAAAAACACAACGAATGCATTTAATAGAGAAACCCCTTC
CCTCCCTCACCTCCCTCCCCACCCCTCATGAATTAAGAATCTAAGAGAAGTAACCATAAACCAA
GTTTGTGGAATCCATCATCCAGAGTGCTTACATGGTATTAGGTTAATTGCCTTCTACAAAATTCTAT
TTTAAAAAAATTATAACCTTGATTGCTTATTACAAAAAAATTCACTACAAAAGTCAATATATTGAAAAATGCT
TTTCCCCTCCCTCACAGCACCGTTTATATAGCAGAGAATAATGAAGAGATTGCTAGTCTAGATGGGCA
ATCTCAAATTACACCAAGACGCACAGTGGTTATTACCCCTCCCTCTCATAAG

13721.2

GGAAAGGATTCAAGAATTAGAGGACTTGCTTGCRRAGAAAAGACAACCTCGTCGCATGCTGACAGACA
AAGAGAGAGAGATGGCGGAAATAAGGGATCAAATGCAGCAACAGCTGAATGACTATGAACAGCTCTTGAT
GTAAAGTTAGCCCTGGACATGGAAATCAGTGCTTACAGGAAACTCTAGAAGGCGAAGAAGAGAGGTTGAA
GCTGTCTCCAAGCCCTCTTCCCGTGTGACAGTATCCCGAGCATTCAAGTCGTAGTGTACCGTACA
AGAGGAAAGCGGAAGAGGGTTGATGTGGAAGAATCAGAGGCGAAGTAGTAGTGTAGCATCTCTCATTCC
GCCTCAACCACGGAAATGTTGCATCGAAGAAATTGATGTTGATGGAAATTATCCGCTTGAAGAACAC
TTCTGAACAGGATCAACCAATGGGAAGGCTGGGAGATGATCAGAAAATTGGAGACACATCAGTCAGTTA
TAAATACCTCAA

13723.1

CATGGGTTTACCAAGGTTGGCCAGGCTGCTTGAACTSCTGACCTCAGGTGATCCACCCGCCTGGCCT
CCCAAAGTGCCTGGATTACAGGGGTGAGCCACACGCCGGCCCCAAAGCTGTTCTTGTCTTAGCG
TAAAGCTCTCTGCCATGCAGTATCTACATAACTGACGTGACTGCCAGCAAGCTCAGTCAGTCAGTCA
TTCTCTTCCAGTTCTCTCTCAAGTTCTGCCTCAGTGAAGCTGCAGGTCCCCAGTTAAGTGT
CAGGTGAGGGTTCTTGAACCTGGTTATCAGTCGAATTAAATCCTCATGATGG

Fig. 15N

13723.2

GATGTGTTGGACCCTCTGTCAAAAAAACCTCACAAAGAATCCCTGCTCATTACAGAAGAAGATGCATT
TAAAATATGGTTATTTCAACTTTTATCTGAGGACAAGTATCCATTAATTATTGTGTCAAGAAGAGATTGAAT
ACCTGCTTAAGAAGCTTACAGAAGCTATGGGAGGGTGGCAGCAAGAACATTGAACATTATAAAATCA
ACTTGATGACAGTAAAATGGCCTTCTGCATGGAACTTATTGAGCTTATTGAAATGGACAGTTAGCA
AAGGCATGGACCGGCAGACTGTGTATGGCAATTAAATGAAGTCTTAATGAACATTATTAGATGTGTTAA
AGCAGGGTTACATGATGAAAAGGCCACAGACGGAAAACTGGACTGAAAGATGGTTGACTAAAACCC
AACATAATTCTTACTATGTGAGTGAGGATCTGAAGGATAAGAAAGGAGACATTCTGGATGAAAATTGC
TGTGAGAAGTCCTGCCTGACAAAAGATGGAAAGAAATGCC

13725.1

GAUTGGTTCTTATTCAAAAAGACACTTGTCAATATTCACTGTCAGTRCAAAACAGTTGCACTATTGATTCTCTTTC
TCCAATCGGCCAAAGAGACCACATAAAAGGAGAGTACATTAAAGCCAATAAGCTGCAGGATGTACAC
CTAACAGACCTCCTAGAAACCTTACCGAGAAATGGGACTGGTAGGAAAGGAAACTAAAGATCAACAA
ACTGCCAGCCCACGGACTGCAGAGGCTGCACAGCCAGATGGGGTGGCCAGGGTGCCACAAACCCAAAG
CAAAGTTCAAAATAATATAAAATTAAAAAGTTTGTACATAAGCTATTCAAGATTCTCCAGCACTGACTGA
TACAAAGCACAATTGAGATGGCACTCTAGAGACAGCAGCTCAAACCCAGAAAAGGGTGTGAGATGAAG
TTTCACATGGCTAAATCAGTGGAAAAACACAGTCTTCTTCTTCAAGGANGCAGGAAAGCAAT
TAAGTGGTCACCTAACATAAGGGGAC

13725.2

TGGGTGGGCACCATGGCTGGGATCACCAACCATCGAGGCAGGTGAAGCGCAAGATCCAGGTTCTGCAGCAG
CAGGCAGATGATGCAGAGGAGCGAGCTGAGCGCCTCCAGCGAGAAGTTGAGGGAGAAAGGCGGGCCCG
GGAACAGGCTGAGGCTGAGGTGGCCTCCTGAACCGTAGGATCCAGCTGGTGAAGAAGAGCTGGACCGT
GCTCAGGAGGCCTGCCACTGCCCTGCAAAAGCTGGAAGAAGCTGAAAGCTGCTGATGAGAGTGAGA
GAGGTATGAAGGTTATTGAAAACCGGGCTTAAAGATGAAGAAAAGATGGAACTCCAGGAAATCCAACCTC
AAAGAAGCTAACGACATTGAGAAGAGGAGATAGGAAGTATGAAGAGGTGGCTGTAAGTTGGTGTATCAT
TGAAGGAGACTTGGAACCGCACAGAAGGAACGAGCTTGAGCTGGCAAAGTCCCAGGAGATGG
GATGAACCAGATTAGACTGATGGACCANAACC

13726.1&2

AGGGGCNGCGGTGCGTGGCCACTGGGTGACCGACTAGCCTGCCAGACTCTCAGCACCTGGAAGCG
CCCCGAGAGTGACAGCGTGAGGCTGGAGGGAGCTGGCTTGAGCTTAAACTCTGCTCTGAGCCT
CCTTGTGCTGCATTAGATGGCTCCGCAAAGAAGGGTGGCGAGAAGAAAAGGGCGTTCTGCCATC
AACGAAGTGTAAACCCGAGAACACCCATCAACATTCAAGCGCATCCATGGAGTGGCTTCAAGAAGCG
TGCACCTCGGGCACTCAAAGAGATTGAAATTGCCATGAAGGAGATGGAACTCCAGATGTGCGCATTG
ACACCAAGGCTCAACAAAGCTGTCTGGGCCAAAGGAATAAGGAATGTGCCATACCGAATCCGGTGTGCGGC
TGTCCAGAAAAGTAATGAGGATGAAGATTACCAAAATAAGCTATATACTTGGTTACCTATGTACCTGTTAC
CACTTCAAAAATCTACAGACAGTCAATGTGGATGAGAACTAATCGCTGATCGTCAGATCAAATAAGTTATA
AAAT

13727.1

TCGGGAGCCACACTTGGCCCTTCCCTCCAAAGSGCCAGAACCTCCTCTTGGAGAATGGGGAGGC
CTCTGGAGACACAGAGGGTTCACCTGGATGACCTCTAGAGAAATTGCCAAGAAGGCCACCTCTGGT
CCCAACCTGCAGACCCCACAGCAGTCAGTGGTCAGGCCCTGCTGTAGAAGGTCACTTGGCTCCATTGCC
TGCTTCCAACCAATGGGCAGGAGAGAAGGCCTTATTCTGCCACCCATTCCCTGTACCGACACCTC
CGTTTCAGTCAGTGGTCCAGCAACGGTACCGTTACACAGTCACCTCAGACACACCCATTACCTCCCT
TGCCAAGCTGTTAGCCTAGAGTGATTGAGTGAACACTGTTACACACCGTGAATCCATTCCCACAGTCC
ATTCCAGTTGGCACCAGCCTGAACCATTGGTACCTGGTTAATGGAGTCCTGTTACAAGGTGGAGTC
GGGGCTTGCTGACTTCTCTTCAATTGAGGGCAC

13727.2

ACCTAGACAGAAGGTGGGTAGGGAGGACTGGTAGGAGGCTGAGGCAATTCTGGTAGTTGCTCTGAA
ACCTACTGGAGAAGTCAGCATGAGGCACCTACTGAGAGAAGTGCCCAGAAACTGCTGACTGCATCTGTTA
AGAGTTAACAGTAAAGAGGTAGAAGTGTGTTCTGAATCAGAGTGGAAAGCGTCTCAAGGGTCCCACAGTGG
AGGTCCCTGAGCTACCTCCCTCCGTGAGTGGGAAGAGTGAAAGCCCAGAAGAACTGAGATGAAGCAAGG
ATGGGGTTCTGGGCTCCAGGCAAGGGCTGTGCTCTGCAGCAGGGAGCCCCACGAGTCAGAAGAAAA
GAACTAATCATTGTTGCAAGAACCTGCCGGATACTAGCGGAAAATGGAGGCGGNGGTGGGGCAC
AGGAAAGTGGAAAGTGATTGATGGAGAGCAGAGAACGCCTATGCACAGTGGCCGAGTCCACTGTAAAGTG

13728.1&2

TTCAAGCAATTGTAACAAGTATGTAGATTAGAGTGAGCAAAATCATATACAATTTCATTCCAGTTGCTAT
TTTCCAAATTGTTCTGTAATGTCGTTAAATTACTTAAACAAAGCCAAAATTATATTATGACAAGA
AAGCCATCCCTACATTAATCTTACTTTCACTCACCGGCCATCTCCTCTTTCTTAATGCCC
TAAAACGTCTACTGGGCCGGCGTGTGGCTATGCCTGTAATCCCAGCATTGGAGGCAAGGCAG
GCGGATCATGAGGTCAAGAGATTGAGACCATCCTGGCAACATGGTAAACCCCGCCTCGACTAAGAATAC
AAAAATTAGCTGGCATGGTGGCGATGCCTGTAGTCTCAGCTACTGGGAGGCTGAGGCAGAAGAATCG
CTTGAACCCGGAGGCAGAGGATGCAGTGAGCCCCGATCGCGCCACTGCACTTAGCCTGGCGACAGA
CTGAGACTCTGCTC

13731.1&2

TGTGCCAGTCTACAGGCCTATCAGCAGCGACTCCTCAGCAACAGATGGGTCCCTGTTCAGCCCAACC
CCATGAGCCCCCAGCAGCATATGCTCCAAATCAGGCCAGTCCCCACACCTACAAGGCCAGCAGATCCC
TAATTCTCTCCAATCAAGTGCCTCTCCCCAGCCTGTCCCTCTCCACGGCCACAGTCCCAGCCCCCCC
ACTCCAGTCCTCCCCAAGGATGCAGCCTCAGCCTCTCCACACCACGTTCCCCACAGACAAGTCCCCA
CATCCTGGACTGGTAGTTGCCAGGCCAACCCATGGAACAAGGGCATTGCGCCAGCC

13734.1&2

TGTAAAAACTGTTTTAATTTGATAAAATAAGGTGGTCCATGCCACGGGGCTGTAGGAAATCCAAG
CAGACCAGCTGGGTGGGGGATGTAGCCTACCTCGGGGACTGTCCTCAAAACGGCTGAGAAG
GCCCGTCAGGGCCCAGGTCCCACAGAGAGGCCTGGATACTCCCCAACCGAGGGCAGACTGGCA
GTGGGGAGCCCCATCGTCCCCAGAGGTGCCACAGGCTGAAGGAGGGCCTGAGGCACCGCAGCCT
GCAACCCCCAGGGCTGCAGTCCACTAATTTACAGAATAAAAGGAACATGGGGATGGGAAAAAGCAC
CAGGTCAGGCAGGGCCCAGGGCCCAGATCCCAGGAGGGCAGGACTCAGGATGCCAGCACCCCTA
GCAGCTCCCACAGCTCTGGCACAGGAGGCCACGGATTGGCACAGGCCGCTGCTGCCATACGCC
ACATTGGAGAACTTGTCCCACAGAGGTCACTCGGAGGAGCTCTCGTGGCACACACTGTACGAACA
CAGATCTCTTGTAAATGACGTACACACGGCGAGGCTGCCGGACAGGGCACGGAGGTCTAGCCCC
ACTT

13736.2

ATGGCTGCTGGATTTAGGTGGAATAGGGGCTGTTGCCATAAATCTGAAGCCTTGAGAACCTGGGCTG
GAGAGCCATGAAGAGGGAAAGGAAAAGAGGGCAAGTCCTGAACCTAACCAATGACCTGATGGATTGCTCGA
CCAAGACACAGAAGTGAAGTCTGTCTGCACTTCCCACAGACTGGAGTTGGCTGAATAGAGCC
AGTTGCTAAAAAATTGGGGGTTGGTGAAGAAATCTGATTGTTGTGATTCAATGTTGATTTAAAAATA
AACAGCAACAACAATAAAACCTGACTGGCTGTTTCCCTGATTCTTACAACATTTTGACCCCT
GAAAATTATTACTTCACCTAAATGGAAGACTGCTGTGTTGTGAAATTGTAATTTTAATTTATTTAT
TCTCTCTCTTTATTTGCCTGAGAATCCGTTGAGAGACTAATAAGGCTTAATATTAATTGATTGTTA
ATATGTATATAAT

13744.2-13696.2

GGCATGCGAGCGCACTCGCGGACGCAAGGGCGGGAGCACACGGAGCACTGCAGGCGCCGGGTT
GGGACAGCGTCTCGCTGGATAGTCGTGTTTGGGATCGAGGATACTCACAGAAACGAAA
ATGCCGAAACCAATCAATGTCGAGTTACCAACATGGATGCAAGACTGGAGTTGCAATCCAGCCAAATAC
AACTGGAAAACAGCTTTGATCAGGTGGAAAGACTATCGGCCTCCGGGAAGTGTGGACTTGGCTCC
ACTATGTGGATAATAAGGATTCCTACCTGGCTGAAGCTGGATAAGAAGGTGTGCCCAGGAGGTCA
AAGGAGAATCCCTCCAGTTCAAGTCCGGGCCAaGTTCTACCTGAAGATGTGGCTGAGGAGCTAC
AGGACATCACCCAGAAACTTCTTCAAGTGAAGGAAGGAATCCTAGCGATGAGATCTACTGCC
CTTGARACTGCCGTCTGGGCTACGCTGTGATGCCAGTTGGGACTACCACCAAGAAG

13746.1&2-13720.1&2

GAAGGAGTCGGGACTCAGCATTGATGCCACCCAAATTCAAAGCGGCATTCTCGGCAGGTCTGGAC
AATCTCTAGGGTCACTACCTGGAAACTCGTTAGGGTACAACCTGAATGCTGAAGGAAAGAACACCTGCAGA
ACCGGACAGAAATTCCCCGGCGATCAGCTGATTGATCTCGGTGACCCAGAAGTCATGGCTAAAGATGAC
GAGGACGTTGTCATTCCCTGGCTTCAAGTGAAGTCCAGGTCAGCGCAGTCTGAGGTATTGGCCGGTTAT
GCACCTGGACCACCAGCACCAGCTCCGGGGCCAGGTGCCAGCTTACATTCTCAGGGTCTG
ATCAAAGTTCACTGGTACACCAGGGACCGGTACCGCAGCGTCAAGTTGTCAGGTTGTCCTGGCTGGGAC
GCCGGGACCGGGAAAGCCGCCACACGTTGGAGACCCCTGCCAGGCCACAGCCACAGAGGGTGGTC
CCCACCGCGGCCCGCCGGCACCCCGCGCGGGTCTGGCGTCCAGCAACGGTGGGCGAGGGCCTCGTTCT
TCCTTGTCGCCATTGCTGCTCCAGAGGACGAAGCCGCAGGCAGGCCACACGAGCGTCAGGATTGAC
CTTCCGTTGAGATGCGGAACCTCATGGCTCCAGGGCGGGAGCGCAGCTACAGCTGAGCGTCGGCG
CCGCCGCTAGGAGCCGCCGGCTGGCTCGTCTCCATTAGCACACAGGGTCCCGGAAAAAG
CTCAGCCSCGGTCCAAACCGCACCCAGCTTGTACCTGCGCCTCGCTG

14347.1

CAGATTTTATTGCACTCGTCACTGGGCCGTTCTGCTGCTATTGCTGCTAGCCTGCTTCCAGC
TGCATGGCCAGGCAGCAAGGCCTGATGACATCTCGCAGGCTGAGAAATGCTGGCTGGCTGGCCAGAG
CAGATTCCGCTTGTTACAAAGGCTCAGGTATAGTCTGGCTCGGTATCTCAGAGAGCTCAAGC
CAGTCTGGTCTTGCTGTATGATCTCCTTGAGCTTCCATAGCCTCTCCTCAGCTCCCTGATCTGAGTC
ATGGCTTCGTTAAAGCTGGACATCTGGGAAGACAGTCTCCTCTGGATAAATTGCTGGAAATCAGC
GCCCGTTAGAGCAGGCTCCATCTCTGTTCCATTGAATCAACTGCTCTCCACTGGGCCACTGTG
GGGGCTCAGCTCCTGACCTGCTGATATCTTAAGGTTAAAGGATATTACAGGAGCTATGCCTG
GT

14347.2

CTCCTCTGGTACATGAACCCAAGTTGAAAGTGGACTTAACAAAGTATCTGGAGAACCAAGCATTCTGCTT
GACTTGCAATTGATGAAACAGCTCGAATGAAGTTGCTACAGGTTACAGCAAGGCCACTGGTACAGACA
ATCTTGAAAGGTGAAAAGCAACTTGTGATGGCCAGACAGGAAGTGGCAAGACACATACTATGGG
CGGAGACCTCTCTGGGAAAGCCCAGAATGCATCCAAGGGATCTATGCCATGGCCTTCCGGACGTCTC
TTCTGAAGAATCAACCCCTGCTACCGGAAGTTGGGCTGGAAGTCTATGTGACATTCTCGAGATCTACAATG
GGAAGCTGTTGACCTGCTAACAAAGAAGGCCAGCTGCGCGTGGAAAGACGGCAAGAACAGGTGC
AAGTGGTGGGGCTTGAGGAACATCTGGNTAACTCTGCTGATGGCANTCAAGATGATCGACATGG
GCAGCGCCTGCAGA

14348.2&14350.1&2

TCCCGAATTCAAGCGACAAATTGGAWAGTGAATGGAAGATGCCTATCATGAACATCAGGCAAATCTTTG
CGCCAAGATCTGATGAGACGACAGGAAGAATTAAGACGCATGGAAGAACTTCACAATCAAGAAATGCAGAA
ACGTAAGAATGCAATTGAGGCAAGAGGGAGGAACGACGTAGAAGAGAGGAAGAGATGATGATTGTC
CGTGAGATGGAAGAACAAATGAGGCGCAAAGAGAGGAAAGTTACAGCCGAATGGCTACATGGATCCAC
GGGAAAGAGACATGCGAATGGGTGGCGAGGAGCAATGAACATGGGAGATCCCTATGTTGAGGAGGCC
AGAAATTCCACCTCTAGGAGGTGGCATAGGTTATGAAGCTAATCCTGGCGTCCACCAGCAACC
ATGAGTGGTCCATGATGGGAAGTGACATGCGTACTGAGCGCTTGGCAGGGAGGTGCGGGGCTGTG
GGTGGACAGGGCCTAGAGGAATGGGCCTGGAACTCCAGCAGGATATGGTAGAGGGAGAGAAGAGTAC
GAAGGC

14349.1&2

TTCGTGAAGACCCCTGACTGGTAAGACCATCACTCTCGAAGTGGAGGCCGAGTGACACCATTGAGAAATGTCA
AGGCAAAGATCCAAGACAAGGAAGGCATCCCTCTGACCAGCAKAGGTTGATCTTGCTGGAAACAGCTG
GAAGATGGACGCACCCCTGACTACAACATCCAGAAAGAGTCCACCCCTGCACCTGGCTCCGTCTCAG
AGGTGGGATGCAAATCTCGTGAAGACCCCTGACTGGTAAGACCATCACCTCGAGGTGGAGGCCAGTGAC
ACCATCGAGAAATGTCAAGGCAAAGATCCAAGATAAGGAAGGCATCCCTCTGATCAGCAGAGGTTGATCTT
TGCTGGAAACAGCTGGAGATGGACGCACCCCTGACTACAACATCCAGAAAGAGTCCACTCTGCACT
TGGCCTGCGCTTGAGGGGGGGTGTCAAGTTCCCCTTTAAGGTTCAACAAATTCAATTGCACTTCC
TTCAATAAAGTTGTTGCATTC

14352.1&2

GCGCGGGTGCCTGGGCCACTGGGTGACCGACTTAGCCTGGCCAGACTCTCAGCACCTGGAAGCGCCCCG
AGAGTGACAGCGTGAGGCTGGAGGGAGGACTTGGCTTGAGCTTAAACTCTGCTCTGAGCCTCCTTG
TCGCCTGCATTTAGATGGCTCCCGAAAGAAGGGTGGCGAGAAGAAAAAGGCCGTTGCCATCACGA
AGTGGTAACCGAGAATACACCATCACACATTACAAGCGCATCCATGGAGTGGGCTCAAGAACGCGTGCAC
CTCGGGCACTCAAAGAGATTGGAAATTGCCATGAAGGAGATGGGAACCTCAGATGTGCGCATTGACACC
AGGCTCAACAAAGCTGTCTGGCCAAGGAATAAGGAATGTGCCATACCGAATCCGTGCGGCTGTCCA
GAAAACGTAATGAGGATGAAGATTACCAAATAAGCTATACTTGGTACCTATGTACCTGTTACCACTTT
CAAAAATCTACAGACAGTCAATGTGGATGAGAACTAATCGCTGATCGT

14353.1

AATTCTTATTAAATCAACAAACTCATCTCCTCAAGCCCCAGACCATGGTAGGCAGCCCTCCCTCTCCAT
CCCCTCACCCCCACCCCTAGCCACAGTGAGGGAAATGGAAAATGAGAACGCCAGGAGGCCCTGCCAGG
GAAGGCTGCCAGATGTGTGGTAGCAGTCAGTCAGCTGTGGCTGGGAGCAGCTGCCACAGGC
TCCTCCCTATAAAATTAAAGTTCTGCAGCCACAGCTGTGGAGAAGCATACTTGTAGAACGAAAGGCCAGTCC
AGCATCAGAACAGGCAGAGGCAGCATCAGTGAACCTCCAGCCATGGAATGAACGGAGGACACAGAGCTCAGAG
ACAGAACAGGCCAGGGGAAGAAGGAGAGACAGAACAGGCCAGGGCATGGCGGTGAGGG

14353.2

TGATGAATCTGGTGGCTGGCAGTAGCCCGAGATGATGGCTTCTCTGGGGATCCAACTGGTCCCC
TAAGAAATCCAAGGAGAACCTCGGAACCTCTCGGATAACCAAGCTGCAAGAGGGCAAGAACGTGATCGGGT
TACAGATGGGCACCAACCAGCGGGGCGTCTCANGCAGGCATGACTGGTACGGGATGCCACGCCAGATCC
TCTGATCCCACCCAGGCCTGCCCCTGCCCTCCCACGAATGGTTAATATATATGTAGATATATTTAGC
AGTGAATCTCCAGAGAGCCCCAGAGCTCTCAAGCTCCTTGTCAAGGTTGGGGGTCAAGCCTGTCC
TGTACCTCTGAAGTGCCTGTCAGGCATCCTCTCCCCATGCTTAACATACATTCCCTCCCCATAGCC

17182.1&2

AGCGGAGCTCCCTCCCCCTGGTGGCTACAACCCACACAGGCCAGGCTCAGGCATCGAGCAGAACTCCAGC
GACTGGGTAACCACTGACATTAGGTGAAGGTGCGGGACACCTACCTGGATACACAGGTGGTGGACAGA
CAGGTGTCATCCGCAGTGTCAAGGGGGCATGTGCTCTGTGACCTGAAGGACAGTGAGAACGTTGTCAG
CATTCCAGTGAGCACCTGGAGCCTATCACCCCCACCAAGAACACAAGGTGAAAGTGATCCTGGCGAG
GATCGGGAAAGCCACGGGCGTCTACTGAGCATTGATGGTGGAGGATGGCATTGTCGTATGGACCTTGATG
AGCAGCTCAAGATCCTCAACCTCCGCTTCCCTGGGGAGCCTGGGAAGCCTGAAGCAGGCAGGGCCGGTG
GACTTCGTGGATGAAGAGTGATCCTCCTTCCCTGGCCCTGGCTGTGACACAAGATCCTCCTGCAG
GGCTAGGCGGATTGTTCTGGATTTCCTTTGTTCTAGGTTCCATCTTCCCTCCCTGGTCTCA
TTGGAATCTGAGTAGAGTCTGGGGAGGGTCCCCACCTCCTGTACCTCCTCCCCACAGCTGCTTTGTT
GTACCGTCTTCAATAAAAAGAACGCTGTTGGTCTA

17183.2

GGTCACAGCACTGCTGCTTGTGTTGCCGGCCAGGAATTCCAGGCTCACAGGCTATCTTAGCAGCTCG
TTCTCCGGTTTTAGTGCCATGTTGAACATGAAATGGAGGAGAGCAAAAGAATCGAGTTGAAATCAATGA
TGTGGAGCCTGAAGTTTAAGGAAATGATGTGCTTCATTACACGGGGAGGCTCCAAACCTCGACAAAAT
GGCTGATGATTGCTGGCAGCTGCTGACAAGTATGCCCTGGAGCGCTTAAAGGTATGTGAGGGATGCC
CTCTGCAGTAACCTGTCGTGGAGAACGCTGCAGAAATTCTCATCCTGGCCACCTCCACAGTGCAGATCA
GTTGAAAACTCAGGCAGTGGATTCATCAACTATCATGCTTCGGATGCTTGGAGACCTTGGG

17186.1&2

TCGTAGCCATTTCTGCTCTTGGAGAATGACGCCACACTGACTGCTCATTGCGTTGGTCCATGCCAA
TTGGTGAAATAGAACCTCATCCGGTAGTGGAGCCGGAGGGACATCTGTCATCAACGGTGATGGTGCGATT
TGGAGCATAACCAGAGCTGGTCTCGCCATACAGGGCAAAGAGGTTGTGACAAGAGGGAGAGATACGG
CATGCCTGTGCAGCCTGATGCACAGTCCCTGCTGTACTCTCCACTGCCAGCCGGAGGGCTCCC
TGTCCGACAGATAGAAGATCACTCCACCCCTGGCTG

17187.1&2

TGGCACACTGCTCTAAGAAACTATGAWGATCTGAGATTTTTGTGATGTTTGACTCTTTGAGTGGTA
ATCATATGTGCTTTAGATGTACATACCTCCTGCACAAATGGAGGGAAATCATTTCATCACTGGGAGT
GTCCTAGTGATAAAAACCATGCTGGTATATGGCTCAAGTTGAAAAATGAAAGTGACTTAAAAGAAAAT
AGGGGATGGTCCAGGATCTCACTGATAAGACTGTTTAAGTAACCTAAGGACCTTGGGTCTACAAGTAT
ATGTAAAAAAATGAGACTTACTGGGTGAGGAAATTCAATTGTTAAAGATGGCGTGTGTGTGTGT
GTGTGTGTTGTGTTGTTGTTTAAGGGAGGGAAATTATTATTACCGTTGCTTGAATTACTGKGTA
AATATATGTYTGATAATGATTGCTYTTGVMACAAAATTAGGVCTGTATAAGTWCTARATGCMCCCTG
GGKGTGATYTTCCMAGATATTGATGATAMCCCTAAAATTGTAACCYGCCTTTCCCTTGCTYTCMATTAA
AAGTCTATTMAAAG

17191.1&89.1

GGGGTAGGCTTTATTAGACGGTTATTGCTGACTACAGGGTCAGAGTCAGTGTAAGCAGTGTAGAG
GCCCGCGTCAGCCCAAGAATGTGGATTTCTCTCCCTATTGATCACAGTGGGTGGTTCTCAGAAAAG
CCCCAGAGGCAGGGACCAAGTGTAGCTCAAGGTTAGAAGTGGAACTGGAAGGCTTCAGTCACATGCTGCTT
CCACGCTTCCAGGCTGGCAGCAAGGAGGAGATGCCATGACGTGCCAGGTCTCCCATCTGACACCAAGT
GAAGTCTGGTAGGACAGCAGCCGACGCCCTGCCTCTGCCAGGAGGCCAATCATGGTAGGCAGCATTGAG
GGTCAGAGGTCTGAGTCCGGAATAGGAGCAGGGCAGGTCCCTGCGGAGAGGCACCTCTGGCCTGAAGA
CAGCTCATTGAGCCCTGCAGTACAGGYGTAGTGCCTGGACCAAGCCCACAGCCTGGTAAGGGCGCC
TGCCAGGGCCACGGCCAGGAGGCA

17192.1&2

TAATTCTTAGCTGTTGGAATCCTAACGCATGCAAAAGCTTGAACAGAAGGGTCACAAAGGAACCAGGG
TTGCTTATGGCATCCAGTTAACGCCAGAGCTGGGAATGCCTCTGGGTACATCCACATCAGGAGCAGAAC
TTGACTTGTGCGGCTCGCTGCCACGGTTGGCGCCCACCGCCCACGTCCACCTCGCCTCCCTGCC
GCCACGTCTGGCGGCCAAGGTCTCCAAAATTGATCTCCAGCTGAGACGTTATATCATTGCTGGCTCC
GGAAATGATGGTCCATAACCGAATCTCAGCATGAGCCTTCACTCTTGATTATGAAGAACAAATCCCT
CTTCACTGCCCATCAGCACCTTCAATTGGTTTCCGGATATTAAATTCTACTTTGCCCGGTCTTATT
ATAGCCTTCACTCATCCAAAGTCATCTCTTGGACCCCTCTTACCTCTCAACTTCATTCTCCTTATT
TTCAGTGTCTGCCACTGGATGATGTTCTCACCTTCAGGTGTTCTCAGTCACATTGATTGATCCAAGTCA
GTTAATTGCTTTGACAGTCCCCAGTTGAGATCCGCTACCTCACGTTGCTCGTCTCAGGCCA
GATCTATCACTCCACTATGCCTATCAAATTACGTTGCCACGAGAACATCAAATCCATCTCCTCGGCCATT
CCACGTCCACGGCCCCCTGACCTCTTCAAGACCACGACCTCGAACAGGTCTGAATAATCGGTCT
ATCAACTGAAAATTGCGCTCTTCACCCCTTCTCAAGTGGCTTCTGAATCTCGTTCACGAGGTGGTCT
CCTTCTGGTCTTCAATTATTCCCTCACCTGAAGTTGATCAGGTCTTCCAACTCGTG

17193

AAGCGGATGGACCTGAGTCAGCGAATCTAGCCCCCTCCCTGGGCCTGCTGTGGTCTGACATCAGT
GACAGACGGAAGCAGCAGACCATCAAGGCTACGGGAGGCCGGCGCTGCGAAGATGAAGTTGGCT
GCCTCTCTTCCGGCAGCCTTATGCTGGCTTGTCTTAAATGGAATCAAGACTGTGGAGACGCGCTGGCGT
CCTCTGCTGAGCAGCAGCGGAACGTGACCATCGCCGTCCACATTGCTCACAGGGACTGGGAAGGCGATG
CCTGTCGGGAGCTGCTGGAGAGACTCGGGATGACTCCTGCTCAGATTAGGCCTGCTCAGGAAAGG
GGAAAAGTTGGTCGAGGAGTGATAGCGGGACTCGTGACATTGGGAAACTTGCAATGCCCGAAGAC
TTAACTCCCAGTGGGTTGTGGAACCTAGAAAATCAAGCTGACTGACCAACCTGAAGCAGAAGTACCTGAC
TGTGATTCAAACCCCAGGTGGTTACTGGGAGCCATACCTAGGAAAGGAGGCAAGGATGATTCCAGGTAG
ACATCCCAGAGCACCTGATCCCTTGGGCATGAAGTGTGACAAGTGTGGGCTCTGAAAGGAATGTTCCR
GAGAAACCAAGCTAAATCATGGCACCTCAATTGCCATCGTGACGCAACCTGTATAAAATTAGGTTAAAGAT
GAATTCCACTGCTTGGAGAGTCCCACCCACTAACGCACTGTGCATGTAACAGGTTCTTGCTCAGATGA
AGGAAGTAGGGGGTGGGGCTTCCTGTGTGATGCCCTTAGGCACACAGGCAATGTCTCAAGTACTTTG
ACCTTAGGGTAGAAGGCAAAGCTGCCAGTAAATGTCTCAGCATTGCTGCTAATTGGCCTGCTAGTTCT
GGATTGTACAAATAATGTGTTGATGATGA

Fig. 15U

16443.1.edit

TCGAGCGGCCGCCGGCAGGTGTCGGAGTCAGCACGGGAGGCGTGGCTTGTAGTTGTTCTCCGGCT
GCCCATGCTCTCCACTCCACGGCGATGTCGCTGGATAGAACCTTGACCAGGCAGGTCAAGGCTGAC
CTGGTTCTGGTCATCTCCTCCGGATGGGGCAGGGTGTACACCTGTGGTCTCGGGGCTGCCCTTG
GCTTGGAGATGGTTCTCGATGGGGCTGGAGGGCTTGTGGAGACCTGCACTGTACTCCTTGCC
ATTCAACCAGTCTGGTCANGACGGTGAGGACGCTNACACACGGTACGNGCTGGTACTGCTCCTCC
CGCGCTTGTCTTGCATTATGCACCTCCACGCCGTACCGTACCAATTGAACTTGACCTCAGGGCTTC
GTGGCTACGTCCACCAACCGATGTAACCTCAAANCTGGNCACGANCACGC

16443.2.edit

AGCGTGGTCGGCCGAGGTCTGAGGTTACATGCGTGGTGGTGACGTGAGGCCACGAAGACCCGTAGG
CAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTAC
AACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCTGCACCAGGACTGGCTGAATGGCAAGGAGTACA
AGTGCAAGGTCTCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCAAAGCCAAGGGCAGCC
CCGAGAACACAGGTGTACACCTGCCCGGAGGAGATGACCAAGAACCAAGGTCAACCTGACC
TGCGCTGGTCAAAGGCTTCTATCCAGCGACATGCCGTGGAGTGGAGAGCAATGGCAGCCGGAGAA
CAACTACAAGACCACGCCCTCCCGTGTGGACTCCGACACCTGCCGGCGCGCTCGA

16444.2.edit

AGCGTGGTNCGGCCGAGGTCCAACCAAGGCTGCANCCGGATGCCATCAAAGTCTCTGCAACATGGA
GACTGGTAGACCTGCGTGTACCCACTCAGCCCAGTGTGGCCAGAAGAACTGGTACATCAGCAAGAAC
CCCAAGGACAAGAGGCATGTCTGGTCGGCGAGAGCATGACCGATGGATTCCAGTTGAGTATGGCGGCC
AGGGCTCCGACCCCTGCCGATGTGGACCTGCCGGCGCGCTCGA

16445.1.edit

AGCGTGGTCGGCCGAGGTCAAGAACCCGCCGACCTGCCGTGACCTCAAGATGCCACTCTGACT
GGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGATGCCATCAAAGTCTCTGCAAC
ATGGAGACTGGTGAAGACCTGCGTGTACCCACTCAGCCCAGTGTGGCCAGAAGAACAGTGTACATCAGCA
AGAACCCCAAGGACAAGAGGCATGTCTGGTCGGCGAGAGCATGACCGATGGATTCCAGTTGAGTATGG
CGGCCAGGGCTCCGACCCCTGCCGATGTGGACCTGCCGGCGCGCTCGA

16445.2.edit

TCGAGCGGTCGCCCGGGCAGGTCCACATCGCAGGGTCGGAGCCCTGGCCGCCATACTCGAACTGGAAT
CCATCGGNATGCTCTGCCGAACCAGACATGCCTTGNCCCTGGGGTTCTGCTGATGTACAGNTCTT
CTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCANTCTCATGTTGCANAAGACTTGATG
GCATCCAGGTTGCAGCCTTGGTGGGGTCAATCCAGTACTCTCCACTCTTCAGACAGAGTGGCACATCTT
GAGGTACGGCAGGTGCAGGGGGTTCTGACCTCGTCGCGACCACGCT

16446.1.edit

TCGAGCGGCCGCCGGGCAGGTCCCTCAGAGCGGTAGCTGTTCTTATTGCCCGGCAGCCTCCATAGA
TNAAGTTATTGCANGAGTCCCTCCACGTCAAAGTACCAAGCGTGGGAAGGATGCACGGCAAGGCCAGT
GACTGCGTTGGCGGTGCAGTATTCTCATAGTTGAACATATCGCTGGAGTGGACTTCAGAATCCTGCCTCT
GGGAGCACTGGACAGAGGAATCGCTGCATTCTGCTGGTGGACCTCGGCCGCGACCACGCT

16446.2.edit

AGCGTGGTCGGCCGAGGTCCACCAGCAGGAATGCAGCGGATTCCCTGTCCCAAGTGCTCCAGAAG
GCAGGATTCTGAAGACCACTCCAGCGATATGTTCAACTATGAAGAATACTGCACCGCCAACGCAGTCAGT
GGCCTTGCCTGCATCTTCCCACGCTGGTACTTGACGTGGAGAGGAACTCCTGCAATAACTTCATCTAT
GGAGGCTGCCGGGGCAATAAGAACAGCTACCGCTCTGAGGAGGACCTGCCCGGGCGCGCTCGA

16447.1.edit

TCGAGCGGCCGCCGGGCAGGTCCACATCGCAGGGTCGGAGCCCTGGCCGCCATACTCGAACTGGAAT
CCATCGGTATGCTCTGCCGAACCAGACATGCCTTGTCCCTGGGGTTCTGCTGATGTACAGTTCTT
CTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGTCTCATGTTGCAGAAGACTTGATG
GCATCCAGGTTGCAGCCTTGGTGGGGTCAATCCAGTACTCTCCACTCTTCAGCCAGAAATGGCACATCTT
GAGGTACGGCAGGTGCAGGGGGTTCTGACCTCGGCCGCGACCACGCT

Fig. 15W

16447.2.edit

AGCGTGGTCGGCCGAGGTCAAGAAACCCGCCGCACCTGCCGTGACCTCAAGATGTGCCACTCTGG
CTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGATGCCATCAAAGTCTTCTGCA
ACATGGAGACTGGTGAGACCTGCGTGTACCCCACCTCAGCCCAGTGTGGCCAGAAGAAGTGGTACATCAG
CAAGAACCCCAAGGACAAGAGGCATGTCTGGCTGGCGAGAGCATGACCGATGGATTCCAGTCAGTAT
GGCGGCCAGGGCTCCGACCCCTGCCATGTGGACCTGCCCGGGCGCGCTCGA

16449.1.edit

AGCGTGGTCGGCCGAGGTCTGTCAGAGTGGCACTGGTAGAAGNTCCAGGAACCCCTGAACGTAAAGG
GTTCTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAAGTGTCTGNAATGGGCCATGAN
ATGGTTGNCTGAGAGAGAGCTCTTGTCTACATTGGCGGGTATGGTCTTGGCCTATGCCTTATGGGGGT
GGCGTTNGGGCGGTGNGGTCCGCCTAAACCATGTTCTCAAAGATCATTGCCCCAACACTGGGTT
GCTGACCANAAGTGCAGGAAGCTGAATACCATTCCAGTGTACATCCCAGGGTGGGTGACGAAAGGGT
CTTTGAACTGTGGAAGGAACATCCAAGATCTCTGNTCCATGAAGATTGGGGTGTGGAAGGGTTACCAAGT
GGGAAGCTCGCTGTCTTTCTCCAATCANGGGCTCGCTTCTGAATATTCTCAGGGCAATGACATA
AATTGTATATTGGTCCCGGTCCAGGCCAG

16450.1.edit

TCGAGCGGGCCGCCGGGCAGGTCCACACACCCAAATTCCCTGCTGGTATCATGGCAGCCGCCACGTGCCA
GGATTACCGGCTACATCATCAAGTATGAGAACGCTGGGTCTCCTCCCAGAGAACGTTCCCTCGGCCCG
CCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGAACCGAATATACAATTATGTCATTGCC
TGAAGAATAATCAGAAGAGCGAGCCCCTGATTGAAAGGAAAAAGACAGACGAGCTCCCCAAGTGGTAACC
CTTCCACACCCAACTTCATGGACCAAGAGATCTGGATGTTCTCCACAGTTCAAAAGACCCCTTCGTC
ACCCACCCCTGGGTATGACACTGGAAATGGTATTCAAGCTTCTGGCACTCTGGTCAAGCAACCCAGTGTGG
GCAACAAATGATCTTGANGAACATGGNTTAGCGGACACACCAGGCCACAACGGGACCCCCATAAGG
CATAGGCCAAGAACATACCCGNGAATGTAGGACAAGAAGCTNTCTCANACAANCATCTCATGGGCC
ATTCCANGACACTTCTGAGTACATCANTCATGGCATCCTGGCACTGATAAAAACCCCTACAGTTA

16450.2.edit

AGCGTGGTCGGCCGCCGGGCAGGTCTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCCTGAACGTAAAGG
GTTCTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAAGTGTCTGGAATGGGCCATGAN
ATGGTTGTCTGAGAGAGAGCTCTTGTCTACATTGGCGGGTATGGTCTTGGCCTATGCCTTATGGGGGT
GGCGTTNGGGCGGTGNGGTCCGCCTAAACCATGTTCTCAAAGATCATTGTTGCCAACACTGGGTT
GCTGACCAGAACGTGCCAGGAAGCTGAATACCATTCCAGTGTACATCCCAGGGTGGGTGACGAAAGGGT
CTTTGAACTGTGGAAGGAACATCCAAGATCTCTGGTCCATGAAGATTGGGGTGTGGAAGGGTTACCAAGT
GGGAAGCTCGCTGTCTTTCTCCAATCANGGGCTCGCTTCTGATTATTCTCAGGGCAATGACAT
AAATTGTATATTGGNTCCGGTNAGCCAATAATAACCCCTGTGACACCANGGGGGGCCGAAGG
ANCACAT

16451.1.edit

AGCGTGGTCGGCCGAGGTCCCTACCCAGAGGTACCACCTACAAACATCATAGTGGAGGCCTGAAAGACC
AGCAGAGGCATAAGGTCGGGAAGAGGTTACCGTGGCAACTCTGTCAACGAAGGCTGAACCAACC
TACGGATGACTCGTGTGTTGACCCCTACACAGTTCCCATTATGCCGTTGGAGATGAGTGGGAACGAATGT
CTGAATCAGGCTTAACTGTTGCCAGTGCTTANGCTTGGAAAGTGGTCATTCAGATGTGATTCACTA
GATGGTGCCATGACAATGGTGTGAACATACAAGATTGGAGAGAAGTGGACCGTCAGGGAGAAAATGGACC
TGCCCCGGCGGCCGCTCGA

16451.2.edit

TCGAGCGGCCGCCCCGGCAGGTCCATTGGCTGGAACGGCATCAACTTGGAAAGCCAGTGATCGTCTAGCCTT
CATTGTCTGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAAGCCTAACGACTGGCACAA
GTTAAAGCCTGATTAGACATTGTTCCCACACTCATCTCCAAACGGCATAATGGGAAACTGTGTAGGGTCAA
AGCACGAGTCATCCGTAGGTTGGTCAAGCCTCGNTGACAGAGTTGCCACGGTAACAAACCTTCCGA
ACCTTATGCCCTGCTGGTCTTCAGTGCCTCCACTATGATGTTAGGTGGTACCTCTGGTGAGGACCTC
GGCGCGACCACGCT

16452.1.edit

AGCGTGGCCGCGCCGAGGTCCATTGGCTGGAACGGCATCAACTTGGAAAGCCAGTGATCGTCTAGCCTT
GGTCTCCAGCTAATGGTGTGGNGGCTCAGTAGCATCTGTCACACGAGCCCTTGGTGGCTGACAT
TCTCCAGAGTGGTGACAACACCCCTGAGCTGGTCTGCTGTCAAAGTGTCTTAAGAGCATAGACACTCACT
TCATATTGGCGNCCACCATAAGTCTGATACAACCACGGAATGACCTGTCAGGAAC

16452.2.edit

TCGAGCGGCCGCCCCGGCAGGTCCCTCAGACCGGGTTCTGAGTACACAGTCAGTGTTGCCTGCACGA
TGATATGGAGAGCCAGCCCCCTGATTGGAAACCCAGTCCACAGCTATTCTGCACCAACTGACCTGAAGTTCA
CTCAGGTACACCCACAAGCCTGAGCGCCAGTGGACACCACCCAAATGTTAGCTACTGGATATCGAGT
GCGGGTGACCCCAAGGAGAAGACCGGACCAATGAAAGAAATCAACCTTGGCTGACAGCTCATCCGTG
GTTGTATCAGGACTTATGGCGGCCACCAAATATGAAAGTGAGTGCTATGCTCTTAAGGACACTTGACAAGC
AGACCAAGCTCAGGGTGTGTCACCACTCTGGAGAATGTCAGCCCACCAAGAAGGGCTGTGACAGATG
CTACTGAGACCACCATCACCATTAGCTGGAGAACCAAGACTGAGACGATCACTGGCTCCAAGTTGATGCC
GTTCCAGCCAATGGACCTCGGCCGCGACCACGCTT

16453.1.edit

AGCGTGGTCGGCCGAGGTCTGGCCGAAGTGTACAGGGAAAGATGTACATGTTAGNTCTCT
CGAAGTCCCGGGCCAGCAGCTCCACGGGGTGGCTCCTGCCTCCAGGCCTCTCATGGATCTT
CTTCACCGCAGCTCTGCTTCAGTCAGAAGGGTGGTCCTCATCCCTCTACAGGGTACCGAGGA
CGTTCTGAGCCAGTCCGCATGCGCAGGGGAATTGGTCAGCTCAGAGTCCAGGCAAGGGGGATGT
ATTTGCAAGGCCGATGTAGTCCAAGTGGAGCTTGTGGCCCTTGTGCCCCCTCAAGGTGCACCTGTG
GCAAAGAAGTGGCAGGAAGAGTCGAAGGTCTTGTGATTGCTGACACCTCTCAAACACTGCCAATGGG
GGCTGGGCAGACCTGCCCGGGCGCCGCTGA

16453.2.edit

TCGAGCGGCCGCCGGCAGGTCTGCCAGCCCCATTGGCGAGTTGAGAAGGNGTGCAGCAATGACA
ACAAGACCTCGACTCTCCTGCCACTTCTTGCCACAAAGTGCACCCCTGGAGGGCACCAAGAAGGGCAC
AAGCTCCACCTGGACTACATCGGGCCTGCAAATACATCCCCCTTGCCTGGACTCTGAGCTGACCGAATT
CCCCCTGCGCATGCGGACTGGCTCAAGAACGTCCTGGTCACCCGTATGAGAGGGATGAGGACAAC
CTTCTGACTGAGAACGACAAGCTGCCGGTAAGAAANATCCATGAGAATGANAAGGCCGNAGGCANGAG
ACCACCCCGTGGAGCTGCTGGCCGGACTTCGAGAAGAACTATAACATGTACATCTCCCTGTACACTGG
CAGTCGGCCAGACCTCGGCCGACCGCT

16454.1.edit

AGCGTGGNTCGGACGACGCCACAAAGCCATTGTATGTAGTTTANTTCAGCTGCAAANAATACCNCCAG
CATCCACCTTACTAACCGCATATGCAGACA

16454.2.edit

TCGAGCGGTGCCCCGGCAGGTCTGGCGGGATAGCACCCGGCATATTTGGAATGGATGAGGTCTGGCA
CCCTGAGCAGCCCAGCGAGGACTGGCTTAGTTGAGCAATTGGCTAGGAGGATAGTATGCAGCACGGT
TCTGAGTCTGGGATAGCTGCCATGAAGNAACCTGAAGGAGGCCTGGCTGGTANGGGTTGATTACAGG
GCTGGGAACAGCTCGTACACTGCCATTCTGCATATACTGGNTAGTGAGGCAGCCTGGCGCTTCTT
TGCCTGAGCTAAAGCTACATACAATGGCTTGNNGACCTCGGCCGACCGCTT

16455.1.edit

TCGAGCGGCCGCCGGGCAGGTCCATTCTCCCTGACGGTCCCACCTCTCTCCAATCTGTAGTCACAC
CATTGTCATGACACCACATCTAGATGAATCACATCTGAAATGACCACTTCAAAGCCTAACGCACTGGCACAA
GTTAAAGCCTGATTAGACATTGTTCCACTCATCTCAAACGGCATAATGGGAAACTGTGTAGGGTCAA
AGCACGAGTCATCCGTAGGTTGTTCAAGCCTCGTTGACAGAAGTGGCCCACGGTAACAACCTCTCCCG
AACCTTATGCCTCTGCTGGTCTTCAAGTGCCTCACTATGATGTTAGGTGGCACCTCTGGTGAGGACC
TCGGCCGCGACCACGCT

16455.2.edit

AGCGTGGTTGCGGCCGAGGTCCCTACCCANAGGTGCCACCTACAACATCATAGTGGAGGCCTGAAAGAC
CAGCAGAGGCATAAGGTTGGGAAGAGGTTGTTACCGTGGGCAACTCTGTCAACGAAGGCTGAACCAAC
CTACGGATGACTCGTCTTGAACCCCTACACAGNTCCCATTATGCCGTTGGAGATGAGTGGGAACGAATG
TCTGAATCAGGCTTAAACTGTTGCCCCAGTGCTTANGCTTGGAAAGTGGTCAATTCAAGATGTGATTCA
ANATGGTGTATGACAATGGTNGAACTACAAGATTGGAGAGAAGTGGNACCGTCAGGGANAAATGGA
CCTGCCCGGGCGGCNCGCTCGA

16456.1.edit

AGCGTGGTCGCCCGAGGTCTGGCTTCTGCTCANGTGATTATCCTGAACCACATCCAGGCCAATAAGCG
CCGGCTATGCCCTGNATTGGATTGCCACACGGCTCACATTGCATGCAAGTTGCTGAGCTGAAGGAAAAG
ATTGATC

16456.2.edit

TCGAGCGGCCGCCGGGCAGGTCCAATTGAAACAAACAGTTCTGAGACCGTTCTCCACCACTGATTAAGA
GTGGGGNGGGCGGGTATTAGGGATAATATTCAATTAGCCTCTGAGCTTCTGGGAGACTTGGTGACCTTG
CCAGCTCCAGCAGCCTCTGGTCCACTGCTTGATGACACCCCACCGCAACTGTCTGTCTCATATCACGAAC
AGCAAAGCGACCCAAAGGTGGATAGTCTGAGAAGCTCTCAACACACATGGGCTGCCAGGAACCATATCAA
CAATGGGCAGCATACCCAGACTTCAAGAATTAAAGGGCCATCTTCCAGCTTTTACCAAGAACGGCGATCAAT
CTTTCTTCAGCTCAGCAAACATTGCATGCAATGTGAGCCG

16459.1.edit

TCGAGCGGCCGCCGGCAGGTCCAGAGGGCTGTGCTGAAGTTGCTGCTGCCACTGGAGCCACTCAA
TTGCTGGCCGCTCACTCCTGGAACCTTCACTAACAGATCCAGGCAGCCTCCGGGAGCCACGGCTCTT
GTGGNTACTGACCCCAGGGCTGACCACCAGCCTCTCACGGAGGCATCTTATGTTAACCTACCTACCATTGC
GCTGTGTAACACAGATTCTCCTCTGCGCTATGTGGACATTGCCATCCCAGCAACAACAAGGGAGCTACT
CAGNGGGGTTGATGTGGTGGATGCTGGCTGGGAAGTTCTGCGCATGCGTGGCACCATTCCCGTGAAC
ACCCATGGGANGNCATGCCTGATCTGGACTTCTACAGAGATCCTGAAGAGAGATTGAAAAAGAAGAACAGGCT
GNTGCTGANAAAGCAAGTGACCAAGGANGAAATTCAAGGGTGAANGGACTGCTCCGCTCCTGAATT
ACTGCTACTCAACCTGANGNTCAGACTGGTCTGAAGGNGNACANGGCCCTGGGCCTATTAGCA
NCTCGGTGCGAACACGNT

16459.2.edit

AGCGTGNGTCGCGGCCGAGGTGCTGAATAGGCACAGAGGGCACCTGTACACCTCAGACCAGTGTGCAAC
CTCAGGCTGAGTAGCAGTGAACTCAGGAGCGGGAGCAGTCCATTCAACCCTGAAATTCCCTGNCAGT
GCCTTCTCAGCAGCAGCCTGCTCTTCAATCTCTCAGGATCTGTAGAAGTACAGATCAGGCATG
ACCTCCCAGGGTGTTCACGGAAATGGTGCCACGCATGCGCAGAACTTCCCAGGCCAGCATCCACCACA
TCAAACCCACTGAGTGAGCTCCCTGTTGTCATGGATGGCAATGTCCACATAGCGCAGAGGAGAATC
TGTGTTACACAGCGCAATGGTAGGTTAACATAAGATGCCTCCCGAGAAGCTGGTGGTCAGCCCTG
GGGTCAAGTAACCACAAGAACCGTGGCTCCCGAAGGCTGCCTGGATCTGTTAGTGAAGGNTCCAGGA
GTGAAGCGGCCAACAAATTGGAGTGGCTCAGTGGCAAGCAGCAAACCTCAGCACAAGCCCTGGACCTG
CCGGCGGCCGCTCGA

16460.1.edit

TCGAGCGGCCGCCGGCAGGTCCATTCTCCCTGACGGNCCCACCTCTCCAATCTTAGTTACAC
CATTGTCATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCAAAGCCTAACGACTGGCACACA
GTTAAAGCCTGATTGACACATTGTTCCACTCATCTCAAACGGCATAATGGGAAACTGTGTAGGGTCAA
AGCACGAGTCATCCGTAGGTTGGTCAAGCCTCGTTGACAGAGTTGCCACGGTAACACCTCCTCCCG
AACCTTATGCCTCTGCTGGCTTCAGNCCTCACTATGATGNTGTAGGGGGCACCTGGNGANGAC
CTCGGCCGCGACCACGCT

16460.2.edit

AGCGTGGTGCGGCCGAGGTCTCACCAAGAGGTGCCACCTACAACATCATAGTGGAGGCAGTGAAGACC
AGCAGAGGCATAAGGCTGGGAAGAGGTTGTTACCGTGGCAACTCTGTCAACGAAGGCTGAAACCAACC
TACGGATGACTCGTGTGTTGACCCCTACACAGTTCCATTATGCCGTTGGAGATGAGTGGAACGAATGT
CTGAATCAGGCTTAAACTGTTGCCAGTGCTTANGCTTGGAAAGTGGTCATTTCAGATGTGATTCT
AGATGGTGCCATGACAATGGNGNGAACTACAAGATTGGAGAGAAGTGGNACCGNCAGGGAGAAAATGGAC
CTGCCCGGGCGGCCGCTCGA

Fig. 15BB

16461.1.edit

AGCGTGGTCGGCCGAGGTCCACATCGCAGGGTCGGAGGCCCTGGCCGCATACTCGAACTGGAATCC
ATCGGTATGCTCTGCCGAACCAGACATGCCTCTGCTCCTGGGGTCTTGCTGATGTACCAGTCTTCTG
GGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTACCAGTCTCCATGTTGAGAAGACTTGATGGCA
TCCAGGNTGCAACCTGGTGGGTCAATCCAGTACTCTCCACTCTTCCAGCCAGAGTGGCACATCTTGAG
GTCACGGCAGGTGCGGNCGGGGNTTTCGGCTGCCCTGGNCTCGNTGTNCTCNATCTGCTGGC
TCA

16461.2.edit

TCGAGCGGCCGCCGGCAGGTCTCGGGTCGACTGGTATGCTGGCCTGTTGGTCCCCCGGCCCT
CCTGGACCTCCTGGCCCCCTGGCCTCCAGCGCTGGTTGACTTCAGCTCCTGCCAGCCACCTC
AAGAGAAGGCTACGATGGTGGCGCTACTACCGGGCTGATGATGCCAATGTGGTTGACCGTGACCT
CGAGGTGGACACCACCCCTCAAGAGCCTGAGCCAGCAGATCGAGAACATCCGGAGGCCAGAGGGCAGNC
CAAGAACCCCGCCCGCACCTGCCGTGACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGG
ATTGACCCCAACCAAGCTGCAACCTGGATGCCATCAAAGTCTCTGCAACATGGAGACTGGTGAGACCTGC
GTGTACCCCACTCAGCCCAGTGTGGCCAAAAGAACCTGGTACATCAGCAAGAACCCCAAGGACAAGAAC
ATGTCGGTTCGGCGAGAACATGACCGATGGATTCCAGTCAGTATGGCGGGCAGGGCTCCGACCCCTGC
CGATGGGACCTGGCCGCGAACACGCT

16463.1.edit

AGCGTGGNNNGCGGCCGAGGTATAATATCCAGNCATATCCTCCCTCACACGCTGANAGATGAAGCTGT
NCAAAGATCTCAGGGTGGANAAAACCAT

16463.2.edit

TCGAGCGGCCGCCGGCAGGTCTCAGACTTGGACTGTGTCACACTGCCAGGCTCCAGGGCTCCAAC
TTGCAGACGGCCTGTTGAGACAGTCTCTGTAATCGCAAAGCAACCATGGAAGACCTGGGGAAAACA
CCATGGTTTATCCACCCCTGAGATCTTGAACAACCTCATCTCAGCGTGCAGGGAGGCTCTGGACTG
GATATTCTACCTCGGCCGCGACACGCT

Fig. 15CC

16464.1.edit

CGAGCGGGCGACCGGGCAGGTNCAGACTCCAATCCANANAACCATCAAGCCAGATGTCAGAAGCTACACC
ATCACAGGTTACAACCAGGCAGTACTACAAGANCTACCTGCACACCTTGAATGACAATGCTCGGAGCTC
CCCTGTGGTCATCGACGCCCTCACTGCCATTGATGCACCATCCAACCTGCCTGCCACACACCCA
ATTCCCTGCTGGTATCATGGCAGCCGACGTGCCAGGATTACCGGTACATCATCNAGTATGANAAGCCTG
GGCCTCCTCCAGAGAAGNGGTCCCTGGCCCCCTGNTGTCCANAGGNTACTATTACTNGGCCNGC
AACCGGCAACCGATATCNATTGNCATTGGCCTCAACAATAATTA

16464.2.edit

AGCGTGGTCGCGGCCGANGTCCTGTCAAGTGGCACTGGTAGAAGTTCCAGGAACCTGAACGTGTAAGG
GTTCTTCATCAGNGCCAACAGGATGACATGAAATGATGACTCAGAAGTGTCTGGAATGGGGCCATGAG
ATGGTTGTCTGAGAGAGAGCTCTTGNCTGTCTTTCCTCCAATCAGGGGCTGCTTCTGATTATTC
TTCAGGGCAATGACATAAATTGTATATTGGGTCCCGNTCCAGGCCAGTAATAGTANCTCTGTGACACC
AGGGCGGNGCCGAGGGACCACTCTCTGGGAGGGAGACCCAGGCTCTCATACTTGATGATGTAACCGGTA
ATCCTGGCACGTGGCGGCTGCCATGATACCAGCAAGGAATTGGGGTGTGGGCCAGGAAACGCCAGGTT
GGATGGNGCATCAATGGCAGTGGAGGCCGTCATGACCACAGGGGAGCTCCGACATTGTCATTCAAGGT
G

16465.1.edit

AGCGTGGNCGCCGAGGTGCAGCGCGGCTGTGCCACCTCTGCTCTGCCAACGATAAGGAGGG
TNCCTGCCCTCAGGAGAACATTAACNTCCCCAGCTCGGCCTCTGCCGG

16465.2.edit

TCGAGCGGCCGCCGGCAGGTTTTTGCTGAAAGTGGNTACTTTATTGGNTGGAAAGGGAGAAGCT
GTGGTCAGCCCAAGAGGGAAATACAGAGNCCGAAAAGGGGAGGGCAGGTGGCTGGAACCAGACGCA
GGCCAGGCAGAAACTTCTCTCCACTGCTCAGCCTGGTGGCTGGAGCTCANAAATTGGAGTGAC
ACAGGACACCTCCCACAGCCATTGCGCGGCATTTCATCTGCCAGGACACTGGCTGCCACCTGGCAC
TGGTCCCACAGAAGCCCAGCTGGGAAAGTTAATGTCACCTGGGGCAGGAACCTCCTTATCATTG
NGCAGAGAGCAGAAGGTGGCACAGCCCGCTGCACCTCGGCCGACCACGCT

16466.2.edit

TCGAGCGGCCGCCGGCAGGTCCACCATAGTCCTGATACAACCACGGATGAGCTGTCAGGAGCAAGGT
TGATTCTTCATTGGTCCGNCTTCTCCTGGGGNCACCGCACTCGATATCCAGTGAGCTGAACATTG
GGTGGCGTCACTGGCGCTCAGGCT

16467.2.edit

TCGAGCGGTTCGCCCGGGCAGGTCCACCATAGCCACACCAATTCTTGCTGGTATCATGGCAGCCGCCACGTGCC
AGGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGCTCCTCCAGAGAAGCGGTCCCTGGCCCC
GCCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGAACCGAATATACAATTATGTCATTGNC
CTGAAGAATAATCANNAANAGCGANCCCTGATTGGAAGGA

Fig. 15DD

01_16469.edit

02_16469.edit

TCGAGCGGNCGCCGGGAGGTCTGCCAACACCAAGATTGGCCCCCGCCGCATCCACACAGTCCTGTG
CGGGGAGGTAAACAAGAAATACCGTGCCTGAGGTTGGACGTGGGAATTCTCCTGGGGCTCAGAGTGT
GTACTCGTAAAACAAGGATCATCGATGTTGCTACAATGCATCTAATAACGAGCTGGTTCGTACCAAGACCC
TGGTGAAGAATTGCATCGTGCTCATCGACAGCACACCGTACCGACAGTGGTACGAGTCCCCTATGCGCTG
CCCCTGGGCCGCAAGAAGGGAGCCAAGCTGACTCCTGAGGAAGAAGAGATTAAACAAAAACGATCTAA
NAAAAAAAACAAT

03 16470.edit

AGCGTGGTCGCCGGCGAGGTGAAATGGTATTAGCTTCTGGCACTTCTGGTCAGCAACCCAGTGTTGGG
CAACAAATGATCTTGAGGAACATGGTTAGCGGACACACCGCCCCACAACGCCACCCCCATAAGGCAT
TAGGCCAAGACCATAACCCGCCGAATGTAGGACAAGAAGCTCTCTCAGACAACCCTCATGGGCCCAT
TCCAGGACACTTCTGAGTACATCATTCTGTCATCCTGTTGGACTGATGAAGAACCCCTACAGTTCAGGG
TTCCCTGGAACCTTCTACCAGTGCCACTCTGACAGGACCTGCCGGCGGGCGCTCGA

04 16470.edit

TCGAGCGGCCGCCCCGGGAGGTCTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCTGAAGTGAAG
GGTTCTTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAGTGTCTGGATGGGGCCATGA
GATGGTTGTCAGAGAGAGCTTCTGTCCTACATTGGCGGGTATGGTCTTGGCCTATGCCTTATGGGG
TGGCCGTTGGCGGTGTGGTCCGCCCTAAACCATGTTCTCAAAGATCATTGTTGCCAACACTGGGT
TGCTGACCAGAAGTGCAGGAAGCTGAATACCATTACCTCGGCCGCGACCACGCTA

05_16471.edit

TCGAGCGGCCGCCGGCAGGTCTCCCTTCTGGCGCCCAGGGCAGCGCATAGTGGACTCGTACAC
TGTGGTACGGTGTGCTGATGAGCACGATGCAATTCTCACCAAGGTCTGGTACGAACCAGCTCGTT
ATTAGATGCATTGTAGACAACATCGATGATCCTGTTACGAGTACAACACTCTGAGCCCCAGGAGAAATT
CCCCACGTCCAACCTCAGGGCACGGTATTCTGTTACCTCCCCCACCGGACTGTGTGGATGCGGC
GGGCCAAGCTGACTCCTGAGGAAGAAGAGATTAAACAAAAACGATCTAAAAAAATT
CAGAAGAAATATG
ATGAAAGGAAAAAGAATGCCAAATCAGCAGTCTCCTGGAGGAGCAGTCCAGCAGGGCAAGCTCTGCG
TGCATCGCTCAAGGCCGGACAGTGTGACCGAGCAGATGGCTATGTGCTAGAGGGCAAAGAAGTGGAGT
TCTATCTTAAGAAAATCAGGGCCAGAATGGTGNCTTCAACTAATCCAAAGGGAGTTCAGACCACTG
CAATCAGCAAAACATTGATACTGNTGGCAAATTATTGGTGCAGGGCTGCACANTANGANNGGCTGG
TCTTGGGGCTGGATTGGNACAAGCTTGGCAGCCTTCTTGGTTGCCAAAAACCTTTGNTGAAGAN
GANACCTNGGGCGGACCCCTAACCGATTCCACNCCNGGNGGCCTTCTANGNCCNCTG

Fig. 15EE

06_16471.edit

AGCGTGGTCGGCCGAGGTCTGCTGCTCAGCGAAGGGTTCTGGCATAACCAATGATAAGGCTGCCAA
AGACTGTTCCAATACCAGCACCAGAACCCAGCCACTCCTACTGTTGCAGCACCTGCACCAATAATTGGCA
GCAGTATCAATGTCTGCTGATTGCAGCTGGCTGAAACTCCCTTGGATTAGCTGAGACACACCATTCTGG
GCCCTGATTTCTTAAGATAGAACTCCAACCTTTGCCCTAGCACATAGCCATCTGCTCGGTACACTGT
CCCGGCCTTGAAGCGATGCACGCAAGAAGCTTGCCTGCTGGAACGTCTCCAGGAGACTGCTGATT
TGGCATTCTTTCTTCATCATATTCTTCTGAATTAGATCGTTTTGTTAAAATCTCTTCTCCT
CAGGAGTCAGCTGGCCCCCGCCGCATCCACACAGTCCGTGCGGGGAGGTAACAAGAAATACCGTGCC
CTGAGGTTGGACGTGGGAATTCTCCTGGGCTCAGAGTGGTGTACTCGTAAACAAGGATCATCGATG
GTGNCTACAATGCATCTAACGAGCTGGTGGACCCAAAGAACCTGGNGAANAAATGGATCGNCTCAT
CGACAGGACACCGTACCCGACAGGGGNACGANTCCCACATGCGCTTGCCTGGCCGCAANAAAGGA
AAACTGCCGGCGGCCNTCGAAAGCCAATTNTGGAAAAAATCCATCACACTGGNGGCCNGTCGAGCA
TGCATNTANAGGGGCCATTCCCCCTNANN

07_16472.edit

TCGAGCGGCCGCCGGCAGGTCCCCAACCAAGGCTGCAACCTGGATGCCATCAAAGTCTTCTGCAACAT
GGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCCAGTGTGGCCCAGAAGAACTGGTACATCAGCAAG
AACCCCAAGGACAAGAGGCATGTCTGGTCGGCAGAGCATGACCGATGGATTCCAGTTGAGTATGGCG
GCCAGGGCTCCGACCCCTGCCATGTGGACCTCGGCCGCGACCACGCT

08_16472.edit

AGCGTGGTCGGCCGAGGTCCACATCGGCAGGGTCGGAGGCCCTGGCCGCATACTCGAACTGGAATCC
ATCGGTATGCTCTGCCGAACCAAGACATGCCTCTGCTCCTGGGTTCTGCTGATGTACCGATTCTCTG
GGCCACACTGGCTGAGTGGGTACACGCAGGTCTCACCAGTCTCATGTTGCAGAAGACTTGTGATGGCA
TCCAGGTTGCAGCCTGGTGGGACCTGCCCGGGCGCTCGA

09_16473.edit

TCGAGCGGCCGCCGGCAGGTCCACACACCAATTCTTGCTGGTATCATGGCAGCCGCCACGTGCCA
GGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGTCTCCTCCAGAGAAGTGGTCCCTGGCCCCG
CCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGAACCGAATATACAATTATGTCAATTGCC
TGAAGAATAATCAGAAGAGCGAGCCCTGATTGGAAGGAAAAGACAGACGAGCTCCCCAATGGTAACC
CTTCCACACCCCAATCTCATGGACCAGAGATCTGGATGTTCTTCCACAGTTCAAAGACCCCTTCGTC
ACCCACCTGGTATGACACTGGAAATGGTATTCACTGGTCTGGCAGTCTGGTCAGCAACCCAGTGTGG
GCAACAAATGATTTGAGGAACATGGNTTAGGGGACCAACCGCCCACACGGCCACCCCCATAAGG
CATAGGCCAAGACCATAACCGCCGAATGTAGGACAAGAAGCTNTNTCANACACCATNTNATGGGCCCCA
TTCCAGGACACTCTGAGTACATCATTATGNCATCTGTGGCACTTGATGAAAACCTTACAGTTCAGGGTT
CTGGAACCTTACCAAGGCCNTTACAGGACTNGGCCGGACNCCTTAAGCCATTNCACCCCTGGGCGTTCT
ANGTCCCACCGNNCACTGGNGAAAATGGCTACTGTN

11_16474.edit

AGCGTGGTCGGCCGAGGTCCACTAGAGGTCTGTGCCATTGCCAGGCAGAGTCTCGCTTACAAA
CTCCTAGGAGGGCTTGTGCGGAGGGCCTGCTATGGTGTGCTGCGGTCATCATGGAGAGTGGGCC
AAAGGCTGCGAGGTGTTGCTGNGAAACTCCNAGGACANGAGGGCTAAATCCATGAAGTTGTGGAT
GGCCTGATGATCCACAATCGGAGACCCGTTAACACTACCGTCTNACCNCCTGCTGTCNCNCNNNTTC
TGCTNAANACATNGGNTNNTCTGNCCNTCTGGGNGAANATNNAATNGCCTNCCNTANCNC
TACTNGNTCCANANTGGCCTTAAANAATCCNCCCTGCCTNNNCACTGTTCANNTNTTNNTCGAAACC
CTATNANTNNATTANATNNTNNNNNCTACCCCCCTCNCATTNANCCNATANGCTNNNAANTCCTNN
NCCTCCNCCNNTNCNCTACTNANTNCTTCTNNCCATTACNNAGCTTTCTTAANATAATGNNG
CCNNGCTCNCATNTCTACNATNTGNNNAATNCCCCNCCCCNANCNCGNNTTTGACCTNNNAACCTCCT
TTCCCTTCCCTNCNNAATTNCNNANTCCNCNTCCNNCTTCGGNTNNTCCATNCTTCCANNNT
CANTCTANCNCNCTNCAACTTATTTCTNTCATCCCTNTTACANNCCCTNNTCTACTCNCNNNT
NCATTANATTGAAACTNCCACNNCTANTNCCTNCTACNNNTTATTTNCGNTCNCCTACNTAATAN
TTAATNANTNTCN

12_16474.edit

TCGAGCGGCCGCCGGGCAGGTCTGCCAAGGAGACCCGTTATGCTGTGGGACTGGCTGGGCATGGC
AGGCGGCTGGCTTCCCACCCCTCTGTTCTGAGATGGGGTGGTGGCAGTATCTCATCTTGGTTCCA
CAATGCTACGTGGTCAGGCAGGGGCTTCTAGGGCCAATCTTACCAAGTGGTCCCAGGGCAGCATGAT
CTTCACCTGATGCCAGCACACCCGTCTGAGCAACACGTGGCGACAAGCAGTGTCAACGTAGTAAGTT
AACAGGGTCTCGCTGGATCATCAGGCCATCCACAAACTCATGGATTAGCCCTCTGTCCTCGGAGTT
TCCAGACACCACAACCTCGCAGCCTTGGCCCCTCTCATGATGAACCGCAGCACACCATAGCAGGC
CCTCCGACAAGCAAGCCCTCTAAGAATTGTAACGCANANACTCTGCTGGCAATGGCACACAAACCTCT
AGTGGACCTCGGNCGCGACCACGC

13_16475.edit

TCGAGCGGCCGCCGGGCAGGTCTGGTCCAGGATAGCCTGCGAGTCCTACTGCTACTCCAGACTTGA
CATCATATGAATCATACTGGGGAGAATAGTTCTGAGGACCACTAGGGCATGATTACAGATTCCAGGGGG
CCAGGAGAACAGGGACCCCTGGTTGCTGGAATACCAGGGTCACCATTCTCCAGGAATACCAGGAG
GGCCTGGATCTCCCTGGGCCTTGAGGTCTTGACCATTAGGAGGGCAGTAGGAGCAGTTGGAGGCTG
TGGGCAAACACTGCACAACATTCTCAAATGGAATTCTGGTTGGGCAGTCTAATTCTGATCCGTACATA
TTATGTATCGCAGAGAACGGATCCTGAGTCACAGACACATATTGGCATGGTCTGGCTCCAGACATCTC
TATCCGNCATAGGACTGACCAAGATGGGAACATCCTCCTCAACAAGCTTGTGCCAAAAATAATAG
TGGGATGAAGCAGACCGAGAAGTANCCAGCTCCCTTTGCACAAAGCNTCATGTCTAAATATCAGA
CATGAGACTTCTTGGCAAAAAGGAGAAAAGAAAAAGCAGTTCAAAGTANCCNCCATCAAGTTGGTCC
TTGCCNTTCAGCACCCGGCCCGTTAAAACACCTNGGGCGGACCCCCCTT

Fig. 15GG

14_16475.edit

AGCGTGGTCGGCCGAGGTGTTTATGACGGGCCGGTCTGAAGGGCAGGGAACAACTTGATGGTGC
TACCTTGAAGTCTTCTTCTCCTTGCACAAAGAGTCTCATGTCTGATATTAGACATGATGAGCTT
GTGCAAAAGGGGAGCTGGCTACTTCTCGCTCTGCTTCATCCCACATTATTTGGCACACAGGAAGCTGTT
GAAGGAGGATGTTCCATCTGGTCAGTCCTATGCGGATAGAGATGTCCTGGAAGGCCAGAACCATGCCAAAT
ATGTGTCTGTGACTCAGGATCCGTTCTCGATGACATAATATGTGACGATCAAGAATTAGACTGCCCAA
CCCAGAAATCCATTGGAGAATGTTGTCAGTTGCCACAGCCTCAACTGCTCCTACTGCCCTCCTAA
TGGTCAAGGACCTCAAGGCCCAAGGGAGATCCAGGCCCTGGTCTCCTGGCCCCCTGGAATCNGNGAATCATGCCCTACT
GGTATTCCAGGACAACCAGGGCCCTGGTCTCCTGGCCCCCTGGAATCNGNGAATCATGCCCTACT
GGTCCTCAAACATTCTCCANATGATTATGATGTCAAGTCTGGATAGCAGTANGGANGGACTCGC
AGGCTATTCTGGACCACCTGCCGGGGCGTCGAAAGCCCACATGTCANANNTNCNTTACACTG
GCCGCCGTCGAGCTGCTTAAAGGGCATTCCNCCTTAGNGNGGGGANTACAATTACTNGGCCGCGT
TTTANANCAGCGNGNCTGGAAAT

15_16476.edit

AGCGTGGTCGGCCGAGGTCCACATCGGCAGGGTCGGAGGCCCTGGCCGCCATACTCGAACTGGAATCC
ATCGGTATGCTCTGCCGAACCAGACATGCCTCTGTCCTTGGGTTCTGCTGATGTACCACTTCTCTG
GCCACACTGGGCTGAGTGGGTACACGCAAGGCTCACCAGTCTCCATGTTGCAAGAACACTTGATGGCA
TCCAGGTTGCAGCCTGGTGGGTCATCCAGTACTCTCCACTCTCCAGTCAGAGTGGCACATCTTGAG
GTCACGGCAGGTGCGGGCGGGTTCTGCGGCTGCCCTCTGGCTCCGGATGTTCTCGATCTGCTGGCT
CAGGCTTGGGGTGGTGTCCACCTCGAGGTACGGTCACGAACACATTGGCATCATCAGCCGGTAG
TAGCGGCCACCATCGTGAGCCTCTTGANGTGGCTGGGAGGAACGTGAAAGTCGAAACCAGCGCTGG
AGGACCAGGGGGACCAANAGGTCCAGGAAGGGCCGGGGGACCAACAGGACCAGCATACCAAGTG
CGACCCGCGAGAACCTGCCGGCGNCCGCTCGAA

16_16476.edit

TCGAGCGNNCGCCGGCAGGTCTCGCGGTGCACTGGTATGCTGGCCTGTTGGCCCCCGGCCCT
CCTGGACCTCTGGTCCCCCTGGCTCTCCAGCGCTGGTTGACTTCAGCTCCTGCCAGCCACCTC
AAGAGAAGGCTCACGATGGTGGCGCTACTACCGGGCTGATGATGCCAATGTGGTCTGACCGTGACCT
CGAGGTGGACACCACCCCTCAAGAGCCTGAGCCAGCAGATCGAGAACATCCGGAGGCCAGAGGGCAGCCG
CAAGAACCCCGCCCGCACCTGCCGTGACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGG
ATTGACCCCAACCAAGGCTGCAACCTGGATGCCATCAAAGTCTCTGCAACATGGAGACTGGTGAGACCTG
CGTGTACCCCACTCAGCCCAGTGTGGCCAGAAGAACTGGTACATCAGCAAGAACCCCAAGGACAAGAGG
CATGTCTGGTTCGGCGAGAGCATGACCGATGGATTCCAGTTGAGTATGGCGGCCAGGGCTCCACCCCTG
CCGATGTGGACCTCCGGCCGCGACCACCCCTT

Fig. 15HH

17_16477.edit

TNGAGCGGCCGCCGGGCAGGNTGNNAACGCTGGCCTGCTGGCCTCCTGGCAAGGCTGGTAAGATG
GTCACCCTGAAAACCCGGACCTGGTGAGAGAGGGAGTTGGACACAGGGTGCTCGTGGTTCCC
TGGAACTCCTGGACTTCCCTGGCTCAAAGGCATTAGGGGACACAATGGTCTGGATGGATTGAAGGGACAG
CCCGGTGCTCCTGGTGAGGGTGACCTGGTCCCCCTGGTAAAATGGAACTCCAGGTCAAACAGGAG
CCCGTGGGCTTCCCTGGTGAGAGAGGGACCGTGTGGTCCCCCTGGCCCANACCTCGGCCGACCGCT
AAGCCCGAATTCCAGCACACTGGNGCCGTTACTANTGGATCCGAGCTCGGTACCAAGCTGGCGTAATC
ATGGTCATAGCTGTTCCGTGGTGAAATTGTTATCCGCTACAATTACACANACATACGAAGCCGGAAAGC
ATAAAAGTGTAAAGCCTGGGGTGCTAATGAGTGAGCTAACTNCNATTAAATTGCGTTGCGCTACTGCCCG
CTTTCCANNNGGAAACCNTGGCNTNGCCNGCTGCNTTAANTGAAATCCGCCNACCCCCGGGGAAAG
NCGGTTGCNGTATTGGGGCNTTTCCCTCGGNTTACTGANTTANTGGCTTGGNCNTTC
GGTGNGGCGANCNGGTTAACNTCACNCCAAAGGNGGNAANACGGTTCCANAATCCGGGGNTANC
CCAANGNAAAACATNNNGNCNAANGGCT

18_16477.edit

AGCGTGGTTNGCGGCCGAGGTCTGGGCCAGGGCACCAACACGTCCCTCTCACCAGGAAGCCCACGGG
CTCCTGTTGACCTGGAGTTCCATTTCACCAGGGCACCGAGTTCACCCCTCACACCAGGAGCACGGGC
TGTCCCTCAATCCATNCAGACCATTGTGNCCCCTAATGCCCTGAAGCCAGGAAGTCCAGGAGTTCCAGG
GAAACCACCGAGCACCTGTGGTCCAACAACCTCCTCTCACCAGGTGTCGGGTTCCAGGAGTGGAC
ATCTCACCAGCCTGCCAGGAGGACCAGCAGGACCGTACCAACCTGCCCGGGCGCGCTCGA

21_16479.edit

TCGAGCGGCCGCCGGGCAGGTCCATTCTCCCTGACGGTCCCACCTCTCTCCAATCTTAGTTCACAC
CATTGTATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCAAAGCCTAACGACTGGCACAAACA
GTTAAAGCCTGATTGACATTCGTTCCACTCATCTCCAACGGCATAATGGGAAACTGTGTAGGGTCAA
AGCACGAGTCATCCGTAGGTTGGTCAAGCCTCGTTGACAGAGTTGCCACGGTAACACCTCTCCGA
ACCTTATGCCTCTGCTGGTCTTCAGTGCCTCCACTATGATGTTAGGTGGCACCTCTGGTGAGGACCTC
GGCGCGACCACGCT

22_16479.edit

AGCGTGGTCGGCCGAGGTCTCACCAAGAGGTGCCACCTACAACATCATAGTGAGGCACGTGAAAGACC
AGCAGAGGCATAAGGTCGGGAAGAGGGTTACCGTGGCAACTCTGTCAACGAAGGCTGAACCAACC
TACGGATGACTCGTGTGTTGACCCCTACACAGTTCCCATTATGCCGTTGGAGATGAGTGGGAACGAATGT
CTGAATCAGGCTTAACTGTTGCCAGTGCTAGGCTTGGAGTGGTCAATTCAAGATGTGATTCATCT
AGATGGTGCATGACAATGGTGTGAACTACAAGATTGGAGAGAAGTGGACCGTCAGGGAGAAAATGGAC
CTGCCCGGGCCGGCCGCTCGA

Fig. 15II

24_16480.edit

TCGAGCGNNCGCCGGGCAGGTCCAGTAGTGCCTCGGGACTGGGTTACCCCCAGGTCTCGGGCAGTT
GTCACAGCGCCAGCCCCGCTGGCCTCCAAAGCATGTGCAGGAGCAAATGGCACCGAGATAATTCTCTGC
CACTGTTCTCCTACGTGGTATGTCTTCCATCATCGAACACGTTGCCTCATGAGGGTCACACTGAATTCT
CCTTTCCGTTCCAAAGACATGTGCAGCTATTGGCTGGCTATAGTTGGGAAAGTTGTTGAAACTG
TGCCACTGACCTTACTTCCTCCTCTACTGGAGCTTGTACCTTCACTTCTGCTGTTGGTAAATGGT
GGATCTTCTATCAATTTCATTGACAGTACCCACTTCTCCAAACATCCAGGGAAATAGTGAATTGAGCGA
TTAGGAGAACCAAATTATGGGGCAGAAATAAGGGGCTTCCACAGGTTTCCCTTGAGGAAGATTTCAGT
GGTGACTIONAAAAGAATACTCAACAGTGTCTCATCCCCATAGCAAAGAACNGTAAATGATGGAANG
CTTCTGGAGATGCCNCATTAAGGGACNCCCAGAACCTCACAGGACCTACTTCAGTTACANNA
AGNCACATANTCTGACTCANAAAGGACCCAAGTAGCNCCATGGNCAGCACTTNAGCCTTCCCTGGGAA
AAANNNTACNTCTAAANCCTNGCCNGACCCCCCTAAGNCCAATTNTGGAAAANTCCNTNCNNCTGG
GGGCGNGTTCNACATGCNTTNAAGGGCCAATTNCCCCNT

25_16481.edit

TCGAGCGGCCGCCGGGCAGGTGTCGGAGTCCAGCACGGGAGGGGTGGCTTGTAGTTGTTCTCCGGCT
GCCCATTGCTCTCCACTCCACGGCGATGTCGCTGGATAGAACCTTGACCAGGCAGGTAGGCTGAC
CTGGTTCTGGTCATCTCCTCCGGATGGGGCAGGGTGTACACCTGTGGTTCTGGGGCTGCCCTTG
GCTTGGAGATGGTTTCTCGATGGGGCTGGAGGGCTTGTGGAGACCTGCACTGTACTCCTTGCC
ATTCAAGCCAGTCTGGTGCAGGACGGTGAGGACGCTGACCACACGGTACGTGCTGTTACTGCTCCTCC
CGCGGCTTGTCTGGCATTATGCACCTCACGCCGTCCACGTACCTGACCTCAGGGTCTTC
GTGGCTACGTCCACCAACCACCGATGTAACCTCAGACCTCGGCCGACCACGCT

26_16481.edit

AGCGTGGTCGCGGCCGAGGTCTGAGGTACATGCGTGGTGGACGTGAGCCACGAAGACCCCTGAGGT
CAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTAC
AACAGCACGTACCGTGTGGTCAGCGTCTCACCGTCTGCACCAGGACTGGCTGAATGGCAAGGAGTACA
AGTCAAGGTCTCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCAAAGCAAAGGGCAAGC
CCCGAGAACACAGGTGTACACCCCTGCCCATCCGGAGGAGATGACCAAGAACAGGTCAAGCTGAC
CTGCCTGGTCAAAGGTTCTATCCCAGCGACATGCCGTGGAGTGGAGAGCAATGGCAGCCGGAGAA
CAACTACAAGACCAACGCCCTCCGTGCTGGACTCCGACACCTGCCGGCGGCCGCTCGA

27_16482.edit

TCGAGCGGCCGCCGGGCAGGTGAATGGCTCTCGCTGACCACCCCGGTGCTGGTGGGGTACAGAG
CTCGATGGGTGAAACCATTGACATAGAGACTGTCCCTGTCAGGGTGTAGGGGCCAGCTCAGTGTG
CGTGGGTCACTGGCTCAGCTTCACTGAGTACAGCCGCTCTGTCCAGGGCTTTGGGTCAAGGACG
ATGGGTGAGACAGCATCCACTGGTGGCTGCCCATCTCAGGCCTGAGCAAGGTCACTGCAA
CCAGAGTACAGAGAGCTGACACTGGTGTCTGAACAAGGGCATAAGCAGACCCCTGAAGGACACCTCGGC
CGCGACCACGCT

Fig. 15JJ

28_16482.edit

AGCGTGGTCGGCCGAGGTCTCCTCAGGGCTGCTTACAGTGGACTCTACTCCCTCAGCAGCGTGGTACCGTGCTCTGACTCTGGTTGCAGACTGACCTGCTCAGGCCTGAGAAGGATGGGGCAGCCACAGAGTGGATGCTGTCTGCACCCATCGTCTGACCCAAAAGCCCTGGACTGGACAGAGAGCAGGGCTGTACTGGAAGCTGAGCCA GCTGACCCACGGCATCACTGAGCTGGGCCCCTACACCCCTGGACAGGGACAGTCTATGTCAATGGTTTACCCATCGGAGCTGTACCCACCACAGCACCGGGGTGGTCAGCGAGGAGCCATTCAACCTGCCCGGGCGGCCGCTCGA

29_16483.edit

AGCGTGGTCGGCCGAGGTCTGTCAGAGTGGCACTGGTAGAAGTTCCAGGAACCCCTGAACGTAAAGGGTTCTTCATCAGTGCACACAGGATGACATGAAATGATGTAACAGAAGTGTCTGGATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTGTCTCACATTGGCGGGTATGGTCTTGGCCTATGCCTTATGGGGGTGCGCGTTGTGGCGGTGTGGTCCGCCTAAAACCATGTTCTCAAAGATCATTGTTGCCAACACTGGGTTGCTGACCAGAAGTGCCAGGAAGCTGAATACCATTCCAGTGTCACTACCCAGGGTGGGTGACGAAAGGGGTTTTGAACTGTGAAGGAACATCCAAGATCTCTGGTCCATGAAGATTGGGGTGTGAAGGGTTACCAAGTTGGGAAGCTCGTCTGTCTTTCTTCCAAATCAGGGGCTGCTCTGATTATTCTTCAAGGGCAATGACATAAATTGATATTGGTCCCGGTTCCAGGCCAGTAATAGTAGCCTCTGTGACACCAGGGGGGGGGAGGGACCTCTNTTGGAAAGAGACCAGCTCTACATTGATGATGAGNCCGTAATCCTGGCACGTGGNGGTTGCATGATNCCACCAAGGAAATNGGNGGGGGNGACCTGCCGGCGGCTCNAAGCCAATTCCACACACTGGNGGCCGTACTATGGATCCCACTCNGTCCAACTTGGNGGAATATGGCATAACTTT

31_16484.edit

TCGAGCGGCCGCCGGCAGGTCTGACCTTTCAGCAAGTGGGAAGGTGTAATCCGTCTCCACAGACAAGGCCAGGACTCGTTGTACCCGTTGATGATAGAATGGGGTACTGATGCAACAGTTGGTAGCCAATCTGCAGACAGACACTGGCAACATTGCGGACACCCTCCAGGAAGCGAGAATGCGAGAGTTCTGTGATATCAAGCACTCAGGGTTGAGATGCTGCCATTGCGAACACCTGCTGGATGACCAGCCAAAGGAGAAGGGGAGATGTTGAGCATGTTCAGCAGCGTGGCTCGCTGGCTCCACTTGTCTCCAGTCTGATCAGACCTCGGCCGCGACCACGCT

37_16487.edit

AGCGTGGTCGGCCGAGGTCTGCTTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTACCGTGCCCTCAGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGCCCAGCAACACCAAGGTGGAAGAGAGTTGAGCCAAATCTGTGACAAAACTCACACATGCCACCGTGGCTCCAGTCTGATCAGACCTCGGGGGACCGTCAGTCTTCTTCCCCGATCCCCCTCCAAACCTGCCGGCGGCCGCTCG

Fig. 15KK

38_16487.edit

CGAGCGGCCGCCGGGCAGGTTGGAAGGGGGATGCGGGGGAGAGGAAGACTGACGGTCCCCCAGG
AGTCAGGTGCTGGGCACGGTGGGCATGTGAGTTGTCACAAGATTGGGCTCAACTCTCTGTCCAC
CTTGGTGTGCTGGGCTGTGATCTACGTTGCAGGTGTAGGTCTGGGTGCCGAAGTTGCTGGAGGGCACG
GTCACCACGCTGCTGAGGGAGTAGAGTCCTGAGGACTGTAGGACAGACCTCGGCCGACCACGCT

39_16488.edit

NGGNNGGTCCGGNCNGNCAGGACCACTCNTCTCGAAATA

41_16489.edit

AGCGTGGTCGCGGCCGAGGTCTCACTTGCCTCCTGCAAAGCACCGATAGCTGCGCTCTGGAAGCGCAGA
TCTGTTAAAGTCCTGAGCAATTCTCGCACCAGACGCTGGAAGGGAGTTGCGAATCAGAAGTCAGT
GGACTTCTGATAACGTCTAATTACGGAGCGCCACAGTACCAAGGACCTGCCGGCGGCCGCTCGA

42_16489.edit

TCGAGCGGCCGCCGGGCAGGTCTGGTACTGNGCGCTCCGTGAAATTAGACGTTATCAGAAGTCCACT
GAACTTCTGATTGCAAACCTCCCTCCAGCGTCTGGTGCAGAAATTGCTCAGGACTTAAACAGATCTG
CGCTTCCAGAGCGCAGCTATCGGTGCTTGCAGGAGGCAAGTGAGGACCTCGGCCGACCACGCT

45_16491.edit

TCGAGCGGCCGCCGGGCAGGTCCACATCGGCAGGGTCGGAGGCCCTGGCCGCATACTCGAACTGGAAT
CCATCGGTATGCTCTGCCGAACCAGACATGCCCTTGTCTGGGTTCTGCTGATGTACCAAGTTCTT
CTGGGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGTCTCCATGTCAGAAGACTTGTATG
GCATCCAGGTTGCAGCCTTGGTGGGGTCAATCCAGTACTCTCCACTCTCCAGTCAGAGTGGCACATCTT
GAGGTACGGCAGGTGCGGGGGTTCTTGACCTCGGCCGACCACGCT

Fig. 15LL

46_16491.edit

GTGGGNTTGAACCCNTTNANCTCGCTTGGTACCGAGCTGGATCCACTAGTAACGGCCGCCAGTGTGC
TGGATTAGCGCTTAGCGTGGTCGGCCGAGGTCAAGAACCCCCGCCGCACCTGCCGTGACCTCAAGATG
TGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGATGCCATCA
AAGTCTTCTGCAACATGGAGACTGGTGGACCTGCGTGTACCCCACTCAGCCCAGTGTGGCCCAGAAGAA
CTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCGGTCCGGAGAGCATGACCGATGGATTC
CAGTCAGATGGCGGCCAGGGCTCCGACCGTCCGATGTGGACCTGCCCGCTCGA

47_16492.edit

AGCGTGGTCGCGGCCGAGGTCTGGATGCTCCTGCTCACAGTGAGATATTACAGGATCACTACGGAG
AAACAGGAGGAAATAGCCCTGTCCAGGAGTTACTGTGCCCTGGGAGCAAGTCTACAGCTACCATCAGCGG
CCTTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTGTCAGTGGCGTGGAGACAGCCCCGCAAGCA
GCAAGCCAATTCCATTAATTACCGAACAGAAATTGACAAACCATCCAGATGCAAGTGACCGATGTTCAAG
ACAACAGCATTAGTGTCAAGTGGCTGCCTCAAGTCCCTGTTACTGGTTACAGAGTAACCACCACTCCCA
AAAATGGACCAAGGACCAACAAAAACTAAAATGCAGGTCCAGATCAAACAGAAATGACTATTGAAGGCTTG
CAGCCCACAGTGGAGTATGTGGTTAAGTGTCTATGCTCAGAAATCCAAGCGGAGAGAAGTCAGCCTCTGGTT
CAGACTGNAAGTAACCAACATTGATGCCCTAAAGGACTGGCATTCACTGATGNGGATGCCGATTCCATCAA
AATTGNTTGGGAAAACCCACAGGGGCAAGTTNCANGTCNAGGNGGACCTACTCGAGCCCTGAGGATGGA
ATCCTTGACTNTTCCCTNNCCTGATGGGGAAAAAAACCTTNAAAACTGAAGGACCTGCCGGCGGCCG
TNCAAAACCAATTCCACCCCTGGGGCGTTCTATGGGNCCCACCGAACAAACTGGGTAAN

48_16492.edit

TCGAGCGGCCGCCGGCAGGTCTTGCAGCTCTGCAGTGCTTCTTCAACCACAGGTGCAGGGAAATAGC
TCATGGATTCCATCCTCAGGGCTCGAGTAGGTACCCCTGTACCTGGAAACTTGCCCTGTGGCTTCCCA
AGCAATTGATGGAATCGGCATCCACATCAGTGAATGCCAGTCCTTAGGGCGATCAATGTTGGTTACTGC
AGTCTGAACCAGAGGCTGACTCTCTCCGCTTGGATTCTGAGCATAGACACTAACACATACTCCACTGTGG
GCTGCAAGCCTCAATAGTCATTCTGTTGATCTGGACCTGCAGTTAGTTTGTGGTCCCTGGTCCATT
TTGGGAGTGGTGGTTACTCTGTAACCAAGTAACAGGGAAACTGAAGGCAGCCACTTGACACTAATGCTGT
TGTCTGAACATCGGTCACTTGCATCTGGATGGTTGTCAATTCTGTTGGTAATTAAATGGAAATTGGCT
TGCTGCTGCCGGGCTTGTCTCACGGCCAGTGCAGCATACACAGTGTGGTATAATCAACTCCAGGTT
AAGCCGCTGATGGTAGCTGAAACTTGCTCCAGGCACAAGTGAACCTCTGACAGGGCTATTCTNCTGTT
CTCGTAAGTGTGATCCTGTAATATCTCACTGGGACAGCAGGANGATTCAAACCTCGGGCGNGACCCCT
AAGCCGAATTNTGCAATATNCATCACACTGGCGGGCGCTCGANCATTAAAAGGCCAATCNCCCCTA
TAGGGAGTNTANTACAATTNG

Fig. 15MM

49_16493.edit

TCGAGCGGCCGCCGGGCAGGTCACTTGGTTGGCATGTTGGTGGTCAAAGATAAAACTAAGT
TTGAGAGATGAATGCAAAGGAAAAAAATATTTCCAAAGTCCATGTGAAATTGTCCTCCATTGGCTT
TGAGGGGGTTCAGTTGGTTGCTGCTGTTCCGGTTGGGGGAAAGTGGTGGGTGGGAGGGAGC
CAGGTTGGATGGAGGGAGTTACAGGAAGCAGACAGGGCCAACGTCG

55_16496.edit

AGCGTGGTCGGCCGAGGTCTCACCAAGAGGTGCCACCTACAACATCATAGTGGAGGCAGTGAAAGACC
AGCAGAGGCATAAGGTCGGGAAGAGGTTGTTACCGTGGCAACTCTGTCAACGAAGGCTGAACCAACC
TACGGATGACTCGTCTTGACCCCTACACAGTTCCCATTATGCCGTTGGAGATGAGTGGAACGAATGT
CTGAATCAGGCTTAAACTGTTGCCAGTGCTAGGCTTGGAAAGTGGTCATTCAGATGTGATTCTA
GATGGTGCCATGACAATGGTGTGAACTACAAGATTGGAGAGAAGTGGACCGTCAGGGAGAAATGGACC
TGCCCCGGCGGCCGCTCGA

56_16496.edit

TCGAGCGGCCGCCGGGCAGGTCCATTTCCTGACGGTCCCACCTCTCTCCAATCTTAGTTCACAC
CATTGTATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCCAAAGCCTAACGACTGGCACAAACA
GTTAAAGCCTGATTGACACATTGTTCCACTCATCTCCAACGGCATAATGGGAAACTGTGTAGGGTCAA
AGCACGAGTCATCCGTAGGTTGGTCAAGCCTCGTTGACAGAGTTGCCACGGTAACAACCTCTCCGA
ACCTTATGCCTCTGCTGGCTTCAAGTGCCTCCACTATGATGTTGAGGTGGCACCTCTGGTAGGGACCTC
GGCGCGACCACGCT

59_16498.edit

TCGAGCGGCCGCCGGGCAGGTCCACCATAGTCCTGATACAACCACGGATGAGCTGTCAGGAGCAAGGT
TGATTCTTCATTGGTCGGTCTCTCCTGGGGTACCCGACTCGATATCCAGTGAGCTGACATTGG
GTGGTGTCCACTGGCGCTCAGGCTGGGTGACCTGAGTGAACCTCAGGTCAAGTGGTCAGGAAT
AGTGGTTACTGCACTGAACCAAGAGGGCTGACTCTCCGCTGGATTCTGAGCATAGACACTAACACAT
ACTCCACTGTGGGCTGCAAGCCTCAATAGTCATTCTGTTGATCTGGACCTGCAGTTAGTTTGTG
GTCCTGGTCATTGGAGTGGTGGTACTCTGTAACCAAGTAACAGGGAACTTGAAGGCAGCCACTG
ACACTAATGCTGTTGCTGAACATCGGTCACTGCACTGGGATGGTTGNCAATTCTGTTGTAATT
ATGGAAATTGGCTTGCTGCTGGGGCTGTCACGGCCAGTGACAGCATACACAGNGATGGNATNAT
CAAATCCAAGTTAAGGCCCTGATGGTAACCTAAACTGCTCCAGCCAGNGAACCTCCGGACAGGGTAT
TTCTCTGGTTTCCGAAAGNGANCCTGGAATNNCTCCTGGANCAGAAGGANCNTCCAAAATGGGCC
GGAACCCCTT

Fig. 15NN

60_16473.edit

AGCGTGGTCGGCCGAGGTCTGTCAGAGTGGCACTGGTAGAAGTCCAGGAACCCCTGAACGTAAAGGG
TTCTTCATCAGTGCCAACAGGATGACATGAAATGATGACTCAGAAGTGTCTGGATGGGGCCATGAGA
TGGTTGTCTGAGAGAGAGCTTGTCTACATTGGCGGGTATGGTCTTGGCTATGCCTATGGGGGTG
GCCGTTGTGGCGGTGTGGTCCGCCTAAAACCATGTTCTCAAAGATCATTGTTGCCAACACTGGGTG
CTGACCAGAAGTGCCAGGAAGCTGAATACCATTCCAGTGTACATCCCAGGGTGGGTGACGAAAGGGTC
TTTGAACTGTGGAAGGAACATCCAAGATCTCTGGTCCATGAAGATTGGGTGTGGAAGGGTACCAAGTTG
GGGAAGCTCGTCTGTCTTTCTTCAATCAGGGGCTCGTCTGATTATTCTTCAGGGCAATGACATA
AATTGTATATTGGTCCCGGTCCAGGCCAGTAATAGTAGCCTCTTGTGACACCAGGGGGGCCANGGA
CCACTTCTCTGGGANGAGACCAGCTCTCATACCTGATGATGTAACCCGTAATCCTGCACGTGGCGGCT
GNCATGATACCANCAAGGAATTGGGTGNGGNGGACCTGCCGGCGCCCTCNA

60_16498.edit

AGCGTGGTCGGCCGAGGTCTGGATGCTCTGCTGTACAGTGAGATATTACAGGATCACTACGGAG
AAACAGGAGGAAATAGCCCTGTCAGGAGTTCACTGTGCTGGAGCAAGTCTACAGCTACCATCAGCGG
CCTAAACCTGGAGTTGATTATACCATCACTGTGATGCTGTCAGTGGCCGTGGAGACAGCCCCGCAAGCA
GCAAGCCAATTCCATTAATTACCGAACAGAAATTGACAAACCATCCCAGATGCAAGTGACCGATGTTAGG
ACAACAGCATTAGTGTCAAGTGGCTGCCTCAAGTCCCCTGTTACTGGTTACAGAGTAACCACCACTCCCA
AAAATGGACCAAGGACCAACAAAAACTAAAAGTCAAGGTCCAGATCAAACAGAAATGACTATTGAAGGCTG
CAGCCCACAGTGGAGTATGTGGTTAGTGTCTATGCTCAGAATCCAAGCGGGAGAGAGTCAGCCTCTGGTTCA
GACTGCAGTAACCACTATTCTGCACCAACTGACCTGAAGTTCACTCAGGTACACCCCACAAGCCTGAGCC
GCCAGTGGACACCACCAATGTTCACTCACTGGATATCGAGTGCAGGGTACCCCAAGGAGAACCCGG
ACCCATGAAAGAAATCACCTGCTCTGACAGCTCATCCGGGGTGTATCAGGACTATGGGGACTGCC
CCGGCNGGCCGNTCGAAANCAGAATTNTGAAATTTCCTNCACTGGGNGGCGNTCGAGCTNCTNTANA
NGGCCAATTNCNTAGNGGTCGTN

61_16499.edit

AGCGTGGTCGGCCGAGGTGNAGG

62_16483.edit

TCGAGCGGCCGCCCCGGCAGGTCCACCAACCCAATTCTTGCTGGTATCATGGCAGCCGCCACGTGCCA
GGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGTCTCCTCCAGAGAAGTGGTCCCTGGCCCCG
CCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGAACCGAATATACAATTATGTCATTGCC
TGAAGAATAATCAGAACAGCGAGCCCCTGATTGGAAGGAAAAAGACAGACGAGCTCCCAACTGGTAACC
CTTCCACACCCCAATCTCATGGACCAGAGATCTGGATGTTCTCCACAGTCAAAAGACCCCTTCGTC
ACCCACCCCTGGGTATGACACTGGAAATGGTATTGAGCTTCTGGACTTCTGGTCAAGCAACCCAGTGG
GCAACAAATGATCTTGAGGAACATGGTTAGGCGGACCACACCGCCCACAAACGGGACCCCCATAAGG
NATAGGCCAAGACCATACCCGCCGAATGTAGGACAAGAAGCTNTCTCAACAAACCATCTCATGGGCC
ATTCCAGGACACTTCTGAGTACATCATTCTCATGTCATCCTGGTGGGACTTGTGATGAANAACCCTACAGTTC
AGGGTCTGGAACTTCTACCAAGNGCCACTTCTGACAGGANCTGGCGNGACCACCC

63_16500.edit

AGCGTGGTCGGCCGAGGTCCATTTCTCCCTGACGGTCCCACTTCTCTCCAATCTTAGTTACACCA
TTGTCATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCAAAGCCTAAGCACTGGCACAACAGT
TTAAAGCCTGATTCAAGACATTGTTCCCACTCATCTCAACGGCATAATGGGAAACTGTGTAGGGTCAAAG
CAGGAGTCATCCGTAGGTTGGTCAAGCCTCGTGACAGAGTTGCCACGGTAACAAACCTCTTCCCGAAC
CTTATGCCTCTGCTGGTCTTCAGTGCCTCCACTATGATGTTGTAGGTGGCACCTCTGGTGAGGACCTGCC
CGGGCGGCCCGCTGA

64_16493.edit

AGCGTGGTCGGCCGAGGTGTGCCCCAGACCAAGGAAATCGGCTTCGACGTTGGCCCTGTCTGCTCCTG
TAAACTCCCTCCATCCAACCTGGCTCCCTCCCACCCAACCAACTTCCCCCAACCCGGAAACAGACAAG
CAACCCAAACTGAACCCCCCTAAAAGCCAAAAAAATGGGAGACAATTTCACATGGACTTGGAAAATATTT
TTTCCTTGCAATTCACTCTCAAACCTAGTTTATCTTGACCAACCGAACATGACCAAAAACCAAAAGTGA
CCTGCCCGGGCGGCCGCTGA

64_16500.edit

TCGAGCGGCCGCCGGGCAGGTCTCACCAAGAGGTGCCACCTACAACATCATAGTGGAGGCAGTGAAAGA
CCAGCAGAGGCATAAGGTTGGAGAGGTTGTACCGTGGCAACTCTGTCAACGAAGGCTTGAACCAA
CCTACGGATGACTCGTGTGCTTGACCCCTACACAGTTCCCATTATGCCGTTGGAGATGAGTGGAACGAAT
GTCTGAATCAGGCTTAAACTGTTGTGCCAGTGCTTAGGCTTGGAAAGTGGTCAATTTCAGATGTGATTCATC
TAGATGGTGCCATGACAATGGTGTGAACACTACAAGATTGGAGAGAAGTGGGACCGTCAGGGAGAAAATGGA
CCTCGGCCGCGACACGCT

16501.edit

TCGAGCGGCCGCCGGGCAGGTACCGGGTGGTCAGCGAGGAGCCATTCACTGAACTTACCATCAA
CAACCTGCGGTATGAGGAGAACATGCAGCACCCCTGGCTCAGGAAGTTCAACACCACGGAGAGGGTCCT
CAGGGCCTGCTCAGGTCCCTGTTCAAGAGCACCAGTGTGGCCCTGTACTCTGGCTGCAGACTGACTT
GCTCAGACCTGAGAAACATGGGGCAGCCACTGGAGTGGACGCCATCTGCACCCCTCCGCCCTGATCCCCT
GGTNCTGGACTGGACANANAGCGGCTATACTTGGAGCTGANCCNAACCTTGGCGGNGACNCCNCTT

16501.2.edit

GAGGACTGGCTCAGCTCCAGTATAGCCGCTCTGTCCAGTCCAGGACCAGTGGATCAAGGCGGAGG
GTGCAGATGGCGTCCACTCCAGTGGCTGCCCATGTTCTCAAGTCTGAGCAAAGNCAGTCTGCAGCCAG
AGTACAGAGGGCCAACACTGGTGCTCTGAACAGGGACCTGAGCAGGCCCTGAAGGACCCTCTCCGTGGT
GTTGAACCTCCTGGAGCCAGGGTGCATGTTCTCTACACCGCAGGTTGATGGTAAGTTCAGTG
TGAATGGCTCCTCGCTGACCACCC

16502.1.edit

AGCGTGGTCGCGCCGAGGTCCACCACACCCAAATTCTTGCTGGTATCATGGCAGCCGCCACGTGCCAGG
ATTACCGGCTACATCATCAAGTATGAGAAGCCTGGTCTCTCCAGAGAAGTGGTCCCTCGGCCCCGCC
CTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCAGGGAACCGAATATACAATTATGTCATTGCCCTG
AAGAATAATCAGAAGAGCGAGCCCCCTGATTGAAAGGAAAAGACAGACGAGCTCCCCAACTGGTAACCCCT
TCCACACCCCAATCTTCATGGACCANANANCTTGATNGTCCTTCACNGGTTNAAAAAACCTTTGCC
CCCCACCTGGGGATTAACCTTGGAAANGGGATTNACCNTTCC

16502.2.edit

TCGAGCGGCCGCCGGGCAGGTCCCTGTCAGAGTGGCACTGGTAGAAGTCCAGGAACCCCTGAACGTAAAG
GGTCTTCATCAGTGCCAACAGGATGACATGAAATGATGTACTCAGAAGTGTCTGGAAATGGGGCCCATGA
GATGGTTGCTGAGAGAGAGCTTCTGTCCTACATTGGCGGGTATGGCTTGGCCTATGCCTTATGGGGG
TGGCCGTTGGCGGTGTGGCCCTAAACCATGTTCTCAAAGATCATTGTCATGCCAACACTGGGT
TGCTGACCAGAAGTGCCAGGAAGCTGAATACCATTCCAGTGTCAACCCAGGGNGGGTACCAAAGGGG
GTCNTTNGACCTGGNGAAAGGAACCATCCAAAANCTGNCCCATG

Fig. 15QQ

16503.1.edit

AGCGTGGNCGGCCGAGGTCTGAGGATGTAAACTCTTCCCAGGGGAAGGCTGAAGTGCTGACCATGGT
GCTACTGGGTCTTCTGAGTCAGATATGTGACTGATGNGAAGTGAAGTAGGTACTGTAGATGGTGAAGTCT
GGGTGTCCTAAATGCTGCATCTCCAGAGCCTCCATCATTACCGTTCTTCTTGCTATGGGATGAGACA
CTGTTGAGTATTCTCTAAAGTCACCACTGAAATCTCCTCCAAAGGAAAACCTGTGGAAAAGCCCCTTATT
CTGCCCCATAATTGGTTCTCTAATCNCCTGAAATCACTATTCCTGGAANGTTGGGAAAANNGGC
NACCTGNCANTGGAANTGGATANAAAGATCCCACCATTACCCAACNAGCAGAAAGTGGGAANGGTACC
GAAAAGCTCCAAGTAANAAAAAGGAGGGAAAGTAAAGGTCAAGTGGCACCAGTTCAAACAAAACCTTCCC
CAAACATANAACCCA

16503.2.edit

AAGCGGCCGCCGGGCAGGNNCAGNAGTCCTCGGGACTGGGNTCACCCCCAGGTCTGCGGCAGTTGT
CACAGCGCCAGCCCCGCTGGCCTCAAAGCATGTGCAAGGAGCAAATGGCACCGAGATATTCTCTGCCA
CTGTTCTCCTACGTGGTATGTCTTCCATCATCGTAACACGTTGCCTCATGAGGGTCACACTGAATTCTCC
TTTCCGTTCCAAGACATGTGCACTGCTATTGGCTGGCTATAGTTGGGAAAGTTGTTGAAACTGTG
CCACTGACCTTACTTCCTCCTCTACTGGAGCTTCCGTACCTCCACTCTGCTGNTGGNAAAAGGG
NGGAACNTCTTATCAATTTCATTGGACAGTANCCNCTTCTNCCAAAACATNCAAGGAAAATATTGATT
NCNAGAGCGGATTAAGGAACAACCCNAATTATGGGGCCAGAAATAAGGGGGCTTCCACAGGTNTTT
CCT

16504.1.edit

TCGAGCGGCCGCCGGCAGGTCTGCAGGCTATTGTAAGTGTCTGAGCACATATGAGATAACCTGGGCC
AAGCTATGATGTTCGATACGTTAGGTGATTAATGCACTTTGACTGCCATCTCAGTGGATGACAGCCTTC
TCACTGACAGCAGAGATCTCCTCACTGTGCCAGTGGCAGGAGAAAGAGCATGCTGCGACTGGACCTCG
GCCGCGACCACGCT

16504.2.edit

AGCGTGGTCGCGGCCGAGGTCCAGTCGCAGCATGCTTTCTCCTGCCACTGGCACAGTGAGGAAGATC
TCTGCTGTCAGTGAGAAGGCTGTCATCCACTGAGATGGCAGTCAGTGCATTAATACACCTAACGTATC
GAACATCATAGCTTGGCCCAGGTTATCTCATATGTGCTCAGAACACTTACAATAGCCTGCAGACCTGCCG
GGCGGCCGCTCGA

16505.1.edit

CGAGCGGCCGCCGGGCAGGTCCAGACTCCAATCCAGAGAACCAAGCCAGATGTCAGAAGCTACAC
CATCACAGGTTACAACCAGGCACTGACTACAAGATCTACCTGTACACCTGAATGACAATGCTCGGAGCTC
CCCTGTGGTCATCGACGCCACTGCCATTGATGCACCCTCAACCTGCGTTCTGGCCACCACACCCA
ATTCCTTGCTGGTATCATGGCAGCCACGTGCCAGGATTACCGGCTACATCATCAAGTATGAGAAGCCT
GGGTCTCCTCCCAGAGAAGTGGTCCCTGGCCCCGCCCTGGTGNACAGAAGCTACTATTACTGGCCTGG
AACCGGGAACCGAATATACAATTATGTCAATTGCCCTGAAGAATAATCANAAGAGCGAGCCCCCTGATTGGAA
GG

16505.2.edit

AGCGTGGTCGGCCGAGGTCCGTAGAGTGGCACTGGTAGAAGTTCCAGGAACCCCTGAACGTAAAGGG
TTCTTCATCAGTCCAACAGGGATGACATGAAATGATGTAACAGAAGTGTCTGGAAATGGGGCCATGAGA
TGGTTGTCTGAGAGAGAGCTTCTGTCCCTGCTTTTCTTCCAATCAGGGGCTCGCTCTGTGATTATTCTT
CAGGGCAATGACATAATTGTATATTGGTTCCCGGTTCCAGGCCAGTAATAGTAGCCTCTGTGACACCAG
GGCGGGGCCGAGGGACCCTCTGGGAGGAGACCCAGGCTCTCATACTTGATGATGTANCCGGTAAT
CCTGGCACCGTGGCGCTGCCATGATACCAGCAAGGAATTGGGTGTTGGCAAGAAACGCAGGTTGG
ATGGTGATCAATGGCAGTGGAGGCGTCGATNACCACAGGGGAGCTCGANCATTGTCAAGGTGGA
CAGGTAGAATCTTGTAACTAGGTGCCTGGTTGTAAACCTG

16506.1.edit

TCGAGCGGCCGCCGGGCAGGTTCTGACCGTGACCTCGAGGTGGACACCACCCCTCAAGAGCCTGAGC
CAGCAGATCGAGAACATCCGGAGCCCAGAGGGCAGCCGCAAGAACCCCGCCCGCACCTGCCGTGACCTC
AAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGATG
CCATCAAAGTCTCTGCAACATGGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCCAGTGTGGCCA
GAAGAACTGGTACATCAGCAAGAACCCCAAGGACAAGAAGCATGTCTGGTTCGGCGAAAGCATGACCGAT
GGATTCCAGTTGAGTATGGCGGCCAGGGCTCCGACCCCTGCCATGTGGACCTCGGCCGACACGCT
AAGCCGAATTCCAGCACACTGGCGGCCGTTACTAGTGGATCCGAGCTCGGTACCAAGCTTGGCGTAA
TCATGGNCATAGCTTTCTGNGTAAAATGGTATTCCGCTTCACAATTCCCAC

16506.2.edit

AGCGTGGTCGGCCGAGGTCCACATCGGCAGGGTCGGAGCCCTGGCCGCCACTCGAACTGGAATCC
ATCGGTATGCTCTGCCGAACCAGACATGCCCTTGTCCCTGGGGTCTTGTGATGTACCAAGTTCTTCTG
GGCCACACTGGGCTGAGTGGGGTACACGCAGGTCTCACCAGTCTCCATGTTGAGAAGACTTGTGGCA
TCCAGGTTGCAGCCTGGTGGGTCAATCCAGTACTCTCCACTCTTCAGTCAGAGTGGCACATCTTGAG
GTCACGGCAGGTGCAGGGGGTTCTTGCAGCTGCCCTGGGCTCCGGATGTTCTGATCTGCTGGCT
CAAGCTTGAAGGGTGGTCCACCTCGAGGTACGGTCACGGTACGAAACCTGCCGGGCCGCTCGA

Fig. 15SS

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Inventor(s): Jennifer L. Mitcham et al.
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"REPLACEMENT SHEETS"

16507.1.edit

AGCGTGGTCGCGGCCGAGGTCAAGAACCCCCGCCGACCTGCCGTACCTCAAGATGTGCCACTCTGACT
GGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGATGCCATCAAAGTCTTCTGCAAC
ATGGAGACTGGTGAGACCTGCGTGTACCCCCTCAGCCCAGTGTGGCCAGAAGAACTGGTACATCAGCA
AGAACCCCCAAGGACAAGAGGCATGTCTGGTCGGCGAGAGCATGACCGATGGATCCAGTCGAGTATGG
CGGCCAGGGCTCGACCCCTGCCGATGTGGACCTGCCCGNGCCGNCCGCTCGAAAAGGCCNAATTCCA
GNCACACTTGGCCGGCCGTACTACTG

16507.2.edit

TCGAGCGGCCGCCGGGCAGGTCCACATCGGCAGGGCGGCCCTGGCCGCATACTCGAAGCTGGAAT
CCATCGGTATGCTCTGCCGAACAGACATGCCTTGTCTGGGTTCTGCTGATGATCAGTTCTT
CTGGGCCACACTGGCTGAGTGGGTACACGAGGCTCACCAAGTCTCCATGTTGAGAAAGACTTGTG
GCATCCAGGTTGCAGCCTGGTTGGGTCAATCCAGTACTCTCCACTCTTCAGTCAGAGTGGCACATCTT
GAGGTACGGCAGGTGCGGGCGGGGTTCTGACCTCGGCCGCGACCACGCT

16508.1.edit

16508.2.edit

ACGCGTGGTCGCGGCCGAGGTCTGGCATTCCCTCGACTTCTCTCCAGCCAGCTCCAGAACATCACATAT
CACTGCAAAAATAGCATTGCATACATGGATCAGGCCAGTGGAAATGTAAGAAGGCCCTGAAGCTGATGGG
GTCAAATGAAGGTGAATTCAAGGCTGAAGGAAATAGCAAATTACACAGTTCTGGAGGATGGTTGCA
CGAAACACACTGGGAATGGAGCAAAACAGTCTTGAATATCGAACACGCAAGGCTGTGAGACTACCTATT
GTAGATATTGCACCCCTATGACATTGGTGGTCCTGATCAAGAATTGGTGTGGACGTTGCCCTGTTGCTTT
TTATAAACCAAACCTATCTGAAATCCAACAAAAAAATTAACTCCATATGTGNTCCCTGTTCTAAATCTT
GGCAACCAGTGCAAGTGACCGACAAAATTCCAGTTATTATTCACAAATGTTGGAAACAGTATAATTGAC
AAAGAAAAAAGGATACTTCTTTTTGGCTGGTCACCAAATACAATTCAAAGGCTTTGGTTTATTT
TTTANCCAATTCCAATTCAAAATGTCTCAATGGNGCTTATAATAAAATAACCTTACCCCTTTNTGAT

Fig. 15TT

16509.1.edit

AGCGTGGTGGCGGGCCGAGGTCTGGGATGCTCCTGCTGTACAGTGAGATATTACAGGATCACTACGGAG
AAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGAGCAAGTCTACAGCTACCATCAGCGG
CCTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTGTCACTGCCGTGGAGACAGCCCCGCAAGCA
GCAAGCCAATTTCATTAATTACCGAACAGAAATTGACAAACCATCCAGATGCAAGTGACCGATGTTAGG
ACAACAGCATTAGTGTCAAGTGGCTGCCTCAAGTTCCCTGTTACTGGTTACAGAAGTAACCACCACTCCC
AAAAATGGACCAGGACCAACAAAAACTAAAAGTCAAGGTCCAGATCAAACAGAAAATGGACTATTGAAGGC
TTGAGCCACAGTGGAAAGTATGTGGNTAGGNGTCTATGCTCAGAATCCCAAGCCGGAGAAAGTCAGCCTT
CTGGTTAGACTGCAGTAACCAACATTGATGCCCTAAAGGACTGGNCATTCACTGGATGGTGGATGTCC
AATT

16509.2.edit

TCGAGCGGCCGCCGGGCAGGTCTTGCAGCTCTGCAGNGTCTTCAACCACAGGTGCAGGGAAATAGC
TCATGGATTCCATCCTCAGGGCTCGAGTAGGTACCCCTGTACCTGGAAACTTGCCTTGTGGCTTCCCA
AGCAATTGATGGAATCGACATCCACATCAGNGAATGCCAGTCCTTAGGGCGATCAATGTTGGTTACTGC
AGTCTGAACCAGAGGGCTGACTCTCTCCGCTTGGATTCTGAGCATAGACACTAACACATACTCCACTGTGG
GCTGCAAGCCTCAATAGTCATTCTGTTGATCTGGACCTGCAGTTAAGTTTGGTGGTCTGNCCCA
TTTTGGGAAGGGGGTTACTCTGTAACCAGTAACAGGGGAACCTGAAGGCAGCCACTGACACTAATG
CTGTTGTCCTGAACATCGGTCACTGCATCTGGGATGGTTGACAATTCTGGTGGCAAATTATGGA
AATTGGCTTGCTGCTGGCGGGGCTGNCTCCACGGGCCAGTGACAGCATA

16510.1.edit

TCGAGCGGCCGCCGGGCAGGTCTTGCAGCTCTGCAGGTGTCTTCAACCACAGGTGCAGGGAAATAGC
TCATGGATTCCATCCTCAGGGCTCGAGTAGGTACCCCTGTACCTGGAAACTTGCCTTGTGGCTTCCCA
AGCAATTGATGGAATCGACATCCACATCAGTGAATGCCAGTCCTTAGGGCGATCAATGTTGGTTACTGC
AGTCTGAACCAGAGGGCTGACTCTCTCCGCTTGGATTCTGAGCATAGACACTAACACATACTCCACTGTGG
GCTGCAAGCCTCAATAGTCATTCTGTTGATCTGGACCTGCAGTTAAGTTTGGTGGCCTGNCCCA
TTTTGGGAAGGGGGTTACTCTGTAACCAGTAACAGGGGAACCTGAAGCAGCCACTGACACTAATG
CTGGTGGCCTGAACATCGGTCACTGCATCTGGGATGGTTGCAATTCTGGTGGTAATTATGGGAAA
TTGGCTTACTGGCTTGCGGGGCTGTCTCCACGGNCAGTGACAAGCATACACAGGNGATGGGTATAATCA
ACTCCAGGTTAAGGCCNCTGATGGTA

16510.2.edit

AGCGTGGTGGCGGGCCGAGGTCTGGGATGCTCCTGCTGTACAGTGAGATATTACAGGATCACTACGGAG
AAACAGGAGGAAATAGCCCTGTCCAGGAGTTCACTGTGCCTGGAGCAAGTCTACAGCTACCATCAGCGG
CCTAAACCTGGAGTTGATTATACCATCACTGTGTATGCTGTCACTGCCGTGGAGACAGCCCCGCAAGCA
GTAAGCCAATTTCATTAATTACCGAACAGAAATTGACAAACCATCCAGATGCAAGTGACCGATGTTAGG
ACAACAGCATTAGTGTCAAGTGGCTGCCTCAAGTTCCCTGTTACTGGTTACAGAGTAACCACCACTCCC
AAAAATGGACCAGGACCAACAAAAACTAAAAGTCAANGTCCAGATCAAACAGAAAATGACTATTGAAGGC
TTGAGCCACAGTGGAGTATGTGGTTAGTGTCTATGCTCAGAATNCCAAGCCGGAGAGAGTCAGCCTTG
GTTCAGACT

Fig. 15UU

16511.1.edit

TCGAGCGGCCGCCGGGCAGGTCAAGCGCTCTCAGGACGTACCACCATGGCCTGGGCTTGCTCCTCCT
CACCCCTCCTCACTCAGGGCACAGGGTCTGGGCCAGTCTGCCCTGACTCAGCCTCCCTCCGCGTCCGG
GTCTCCTGGACAGTCAGTCACCATCTCTGCAGTGGAACAGCAGTGACGTTGGTCTTATGAATTGTCT
CCTGGTACCAACAACACCCAGGCAAGGGCCCCAAACTCATGATTCTGAGGTCACTAAGCGGCCCTCAGG
GGTCCCTGATCGCTTCTGGCTCCAAGTCTGGCAACACGGCCTCCCTGACCGTCTGGGCTCANGCT
GAGGATGANGCTGATTATTACTGGAAGCTCATATGCAGGCAACAACAATTGGGTGTTGGCGGAAGGGAC
CAAGCTGACCGTNCTAAGGTCAAGCCAAAGGCTGCCCCCTGGTCACTCTGTTCCACCCCTCTGAA
GAAGCTTCAAGCCAACAANGNCACACTGGGTGTCTCATAGGACTTTCTACCC

16511.2.edit

AGCGTGGTCGGCCGAGGTCTGTAGCTTCTGTTGGACTTCACTGCTCAGGCGTCAGGCTCAGGTAGCT
GCTGGCCCGTACTTGTGCTTGNTGGAGGGTGTGGTGTCTCCACTCCCGCCTGACGGGGCTG
CTATCTGCCCTCCAGGCCACTGTCACGGCTCCGGTAGAAGTCACTTATGAGACACACCAGTGTGGCCTT
GTTGGCTTGAAGCTCCTCAGAGGAGGGGGAACAGAGTGACCGAGGGGGCAGCCTGGGCTGACCTAG
GACGGTCAGCTTGGTCCCTCCGCCAACACCCAAATTGTTGCTGCATATGAGCTGAGTAATAATCAG
CCTCATCCTCAGCCTGGAGCCCAGAGACNGTCAAGGGAGGCCGTGTTGCCAAGACTTGAAGCCAGAN
AAGCGATCAGGGACCCCTGAGGGCCGCTTACNGACCTAAAAAATCATGAATTGGGGGCCTTGCCT
GGNGTTGGTGGTNACCAGNAAAACAAAATTCTATAAGCACCAACGTCACTGCTGGTTCCAGTCANG
AANATGGTGAACGTGAANTGTCC

16512.1.edit

AGCGTGGTCGGCCGAGGTCCAGCATCAGGAGCCCCGCTTGCCGGCTTGTCATCGCCTTCTTTT
GTGGCCTGAAACGATGTCATCAATTGCGAGTAGCAGAACTGCCGTCCACTGCTGTCTATAAGTC
GCTTCACAGCCAATGGCTCCCATATGCCAGTTCTCATGTCACCAAAAGTACCCGTCTACCATTACAC
CCCAGGTCTCACAGTTCTGGGTGTGCTTGGCCGAAGGGAGGTAAAGTANACGGATGGTGTGGTCCC
ACAGTTCTGGATCAGGGTACGAGGAATGACCTCTAGGGCCTGGCNACAAGCCCTGTATGGACCTGCCG
GGCGGGCCCGCTCGA

16512.2.edit

TCGAGCGGCCGCCGGGCAGGTCCATACAGGGCTGTTGCCAGGCCCTAGAGGNCAATTCTGTACCC
GATCCAGAACTGTGGGACCAGCACCATCCGTCTACTTACCTCCCTGGGCCAAGCACACCCAGGAGAAC
TGTGAGACCTGGGTGTAAATGGNGAGACGGGTACTTTGGTGGACATGAAGGAACGGCATATGGGAGC
CATTGGCTGNGAAGCTGCANACTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGAC
ATCGTTCAAGGCCACAAAAGAAAGGCGATGACCANAGCCGGCAAGGGGGCTCCTGATGCTGGACCT
CGGCCGCCGACCAACGCTT

Fig. 15VV

16514.1.edit

AGCGTGGTCGGCCGAGGTCCACTAGAGGTCTGTGCCATTGCCAGGCAGAGTCTCTGCCTTACAAA
CTCCTAGGAGGGCTTGTGCGGAGGGCCTGCTATGGTGTGCTGCGGTCATCATGGAGAGTGGGCC
AAAGGCTGCGAGGTGTTGGTGTGGAAACTCCGAGGACAGAGGGCTAAATCCATGAAGTTGTGGATG
GCCTGATGATCCACAGCGGAGACCCTGTTAAGTACACTACGTTGACACTGCTGCGCCACGTGTTGCTCANA
CAGGGTGTGCTGGCATCAAGGTGAAGATCATGCTGCCCTGGACCCANCTGGCAAAATGGCCCTTAAA
AACCCCTGCCNTGACCACGTGAACCATTGTGNGAACCCAAGATGAANATACTGCCACCACCCCCCA
TTC

16514.2.edit

TCGAGCGGCCGCCGGCAGGTCTGCCAAGGAGACCCCTTTATGCTGTGGGACTGGCTGGGCATGGC
AGGCGGCTCTGGCTTCCCACCCCTCTGTTCTGAGATGGGGTGGTGGCAGTATCTCATCTTGGGTTCCA
CAATGCTCACGTGGTCAGGCAGGGCTCTAGGGCCAATCTTACCAAGTGGGTCCCAGGGCAGCATGAT
CTTCACCTGATGCCACACCCCTGCTGAGCAACACGTGGCGCACAGCAGTGTCAACGTAGTAGTTAA
CAGGGTCTCCGCTGTGGATCATCAGGCCATCCACAAACTTCATGGATTAGCCCTCTGTCCTGGAGTTTC
CCAAAACACCACAAACCTGCCAGCCTTGGGCCCCACTTCTCATGAATGAAACCGCAGCACACCATTANC
AAGGCCCTCCGCACAGGNAAGCCCTCTAAGGAGTTGTAAACGAAAAACTCTGCCTGGGCAAA
TGGGCACACAGACCTNTANTNGGACCTTGGNCCGCAACCACCGCTT

16515.1.edit

AGCGTGGTCGGCCGAGGTCTGCCCTCTGGCAAGGCTGGTAAGATGGTACCCCTGGAAACCCGG
ACGACCTGGTGAGAGAGGAGTTGGACACAGGGTCTGTTGGTGGACACTCCCTGGAAACTCCTGGACTTCCT
GGCTCAAAGGCATTAGGGACACAATGGTCTGGATGGATTGAAGGGACAGCCCGGTGCTCCTGGTGTGA
AGGGTGAACCTGGNGCCCTGGTAAAATGGAACCTCCAGGTCAAACAGGAGGCCGNGGGCTCCTGGNG
AGAGAGGACGTGTTGGTGCCTGGCCANACCTGCCCGGGCGCTCNAAGCCGAAATCCAGNA
CACTGGCGGCCGNTACTANTGGAATCGAACCTCGGTACCAAGCTGGCGTAATCATGGCATAGCTTG
TTCCCTGGGGNGGAATTGGTATTCCGCTNCCAATTCCACACAATACCGAACCGGAAAGCATTAAAGT
GTAAAAGCCCTGGGGGGCCTAAATGANGTGAGCNTAACTNCATTAAATTGGCGTTGCGCTCACTGCC
CGCTTCCAGTCGGGNA

16515.2.edit

TCGAGCGGCCGCCGGCAGGTCTGGCCAGGGCACCAACACGTCCCTCTCACCAAGGAAGGCCACGG
GCTCCTGTTGACCTGGAGTTCCATTTCACCAAGGGCACAGGTTCACCCCTCACACCAGGAGCACCGG
GCTGCCCCTCAATCCATCCAGACCATTGTGNCCTTAATGCTTGAAGCCAGGAAGTCCAGGAGTTCCA
GGGAAACCACGAGCACCCGTGGTCAACAACCTCTCACCAAGGTGTCGGGTTTCCAGGGTGAC
CATCTCACCAAGCCTGCCAGGAGGGCAGACCTGGCCGACACGCT

Fig. 15WW

16516.1.edit

ANCGTGGTCGCGGCCGAGGTCTCACCAAGAGGTGNCACCTACAACATCATAGTGGAGGCCTGAAAGACC
ANCAGAGGCATAAGGTCGGGAAGAGG

16516.2.edit

TCGAGCGGCCGCCGGCAGGTCCATTCTCCCTGACGGTCCCACCTCTCTCCAATCTTAGTTGACAC
CATTGTATGGCACCATCTAGATGAATCACATCTGAAATGACCACTTCAAAGCCTAACGACTGGCACACA
GTTAAAGCCTGATTAGACATTGTTCCACTCATCTCAAACGGCATAATGGGAAACTGTGTAGGGTCAA
AGCACGAGTCATCCGTAGGTTGGTCAAGCCTCGTTGACAGAGTTGTCACGGTAACAACCTCTCCGA
ACCTTATGCCCTGCTGGTCTTCAGTGCCTCCACTATGATGTTGAGGTGGCACCTCTGGTGAGGACCTC
NGNCCNGAACAAACGCTTAAGCCGNATTCTGAGAATAATCCCACACTTGGCGGCCGCTCGANCATG
CATCNTAAAAGGGGCCAATTCCCCCTTATAAGNGAACCGTATTNCCAATTCACTGGNCCCGCGN
TTTACAAACGNCGGTGAACTGGGAAAAACCTGGCGTTACCCAACTTAATGCCNTGGCAGCACAA
TCCCCCTTCGNCCANCNTGGCGTAAATAACCGAAAA

16517.1.edit

ANCGNGGTGCGGCCGANGTNTTTTTCTNTTTTTT

16518.1.edit

AGCGTGGTCGCGGCCGAGGTCTGAGGTACATGCGTGGTGGGACGTGAGGCCACGAAGACCCCTGAGGT
CAAGTTCACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTAC
AACAGCACGTACCGGGNGGTAGCGTCTCACCGTCTGCACCAGAATTGGTTGAATGGCAAGGAGTACA
AGNGCAAGGTTCAACAAAGCCNTCCAGCCCCNTGAAAAAAACCATTTCAAAGCCAAGGGCAGCC
CCGAGAACACAGGTGTACACCCCTGCCCTACCCGGGAGGGAAAAGANCAANAACCNGGTTAGCCTTAA
CTTGCTGGTCNAANGCTTTATCCCAACGNACTCCCCNTGGAANTGGAAAAACCAATGGCCAANC
CGAAAAACAATTACAANAACCCC

16518.2.edit

TCGAGCGGCCGCCGGCAGGTGTCGGAGTCCAGCACGGGAGGCCTGGTCTGTAGTTGTTCTCCGGCT
GCCATTGCTCTCCACTCCACGGCGATGTCGCTGGGATAGAAGCCTTGACCAGGCAGGTCAAGGCTGAC
CTGGTCTGGTCATCTCTCCGGATGGGGCAGGGTGAACACCTGGGGTCTCGGGGCTGGCCCTT
GGTTTGAANATGGTTCTCGATGGGGCTGGAAGGGCTTGTGNAACCTGCACTGACTCCTGCC
ATTCAACCAGNCCTGGNGCAGGACGGNGAGGACNCTNACCACACGGAACCAGGGCTGGACTGCTCC

16519.1.edit

AGCGTGGTCGCGGACGANGCTCTGTCAGAGTGGNACTGGTAGAAGTTCCANGAACCTGAACGTGTAAGGG
TTCTCATCAGTGCCAACAGGATGACATGAAATGATGACTCAGAAGNGNCCTGGAATGGGGCCCATGANA
TGGTGCC

16519.2.edit

TCGAGCGGCCGCCGGCAGGTCCACCCACACCCATTCTGCTGGTATCATGGCAGCCGCCACGTGCCA
GGATTACCGGCTACATCATCAAGTATGAGAAGCCTGGTCTCCTCCAGAGAAGTGGTCCCTGGCCCCG
CCCTGGTGTACAGAGGCTACTATTACTGGCCTGGAACCGGGAACCGAATATACAATTATGTCATTGCC
TGAAGAATAATCAGAAAGAGCGAGCCCTGATTGAAAGGAAAAGACAGACGAGCTCCCCAATGGTAACC
CTTCCACACCCCAATCTCATGGACCAGAGATCTGGATGTTCTTCACAGTTCAAAGACCCCTTCGGC
ACCCCCCTGGTATGAACTGGAAAANGNANTTAANCTTCCTGGCA

16520.1.edit

AGCGTGGTCGCGGCCGAGGTCTGGATGCTCTGCTGTACAGTGAGATATTACAGGATCACTACGGAG
AAACAGGAGGAAATAGCCCTGTCAGGAGTTCACTGTGCTGGAGCAAGTCTACAGCTACCATCAGCGG
CCTAAACCTGGAGTTGATTATACCATCACTGTGATGCTGCACTGGCGTGGAGACAGCCCCGCAAGCA
GCAAGCCAATTCCATTAATTACCGAACAGAAATTGACAAACCATCCCAGATGCAAGTGACCGATGTTAGG
ACAACAGCATTAGTGTCAAGTGGCTGCCCTCAAGGTNCCCTGGTACTGGTTACAGANTAACCACCACTCC
CAAAATGGACCAGGAACCACAAAAACTAAACTGCAGGGTCCAGATCAAACAGAAATGACTATTGAANG
CTTGCAGCCCCAGTGGAGTATGNGGGTAGTGNCATGCTCAGAATCCAAGCGGAAAANGTCAAGCC
TTNTGGGTTCAA

16520.2.edit

TCGAGCGGCCGCCGGCAGGTCTGGGGTCTGGCACACGACATGGGGNGTTGNTCTNATCCAG
TCATGGATTCCATCCTCAGGGCTCGAGTAGGTACCCCTGTACCTGGAAACTTGCCCTGTGGCTTCCCA
AGCAATTGATGGAATCGACATCCACATCAGTGAATGCCAGTCCTTAGGGCGATCAATGTTGGTTACTGC
AGNCTGAACCAGAGGCTGACTCTCTCCGCTTGGATTCTGAGCATAGACACTAACACATACTCCACTGTGG
GCTGCAANCCTCAATAANNCTTCTGTTGATCTGGACC

16521.2.edit

TCGAGCGGCCGCCGGCAGGTCTGGGGTCTGGCACACGACATGGGGNGTTGNTCTNATCCAG
CTGCCAGCCCCATTGGCGAGTTGAGAAGGTGTGCAGCAATGACAACAANACCTCGACTCTCCCTGCC
ACTCTTGCACAAAGTGCACCCCTGGAGGGCACCAAGAAGGGCCACAAGCTCCACCTGGACTACATCGG
GCCCTGCAAATACATCCCCCTGCCTGGACTCTGAGCTGACCGAATTCCCCCTGCGCATGCGGACTG
GCTCAAGAACCGTCTGGCACCTGTATGANAGGGATGAAGACACNACCC

Fig. 15YY

16522.1.edit

AGCGTGGTCGGCCGAGGTCTGCCTACAGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTACCGTG
CCCTCCAGCAACTTCGGCACCCAGACCTACACCTGCAACGTAGATCACAAGCCCAGCAACACCAAGGTGG
ACAAGAGAGTTGAGCCAAATCTTGACAAAACATCACACATGCCACCAGCACCTGAACACTCTG
GGGGGACCGTCAGTCTCCTCTTCCCCGATCCCCCTTCAAACCTGCCCAGGGCGCTCGAAAGCC
GAATTCCAGCACACTGGCGGCCGGTACTAGTGGANCCNAACTGGNANCAAACCTGGNGGAANTAATGGG
CATANCTGTTCTGGGGGAAATTGGTATCCNGTTACAATTCCNCACAACATACGAGCCGAAGCATA
AAAGNGTAAAGCCTGGGGNGGCCTANTGAAGTAAACTCACATTAATTNGCGTTGCCGCTACT
GGCCGCTTCCAGC

16522.2.edit

TCGAGCGGCCGCCGGCAGGTTGGAAGGGGATGCGGGGAAAGAGGAAGACTGACGGTCCCCCAG
GAGTCAGGTGCTGGGCACGGTGGCATGTGAGTTGTCACAAGATTGGCTCAACTCTTGCTCA
CCTGGTGTGCTGGCTTGATCTACGTTGAGGTGAGGTCTGGNGCCGAAGTTGCTGGAGGGCAC
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16523.1.edit

AGCGTGGNCAGGACGANGACAACAACCCC

16523.2.edit

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16524.1.edit

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Fig. 15ZZ

16524.2.edit

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GCAGCACCCCTTCCTCCTGGGACCAGGGGACCAGCTCCACCTTAAGTCCTGGGCCCCCTGCCAATC
CAGGAGGGCCTCTTACCTTCTACCCGGAGCCCCTTTCT

16526.1.edit

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16526.2.edit

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GGCTTTGCATGGACT

16527.1.edit

16527.2.edit

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GTACTCGTAAAACAAGGATCATCGATGTTGCTACAATGCATCTAATAACGAGCTGGTTCGTACCAAGACCC
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CCT

Fig. 15AAA

16528.1.edit

TCGAGCGGCCGCCGGGCAGGTCCACCAACCCAAATCCTGCTGGTATCATGGCAGCCGCCACGTGCCA
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TGAAG

16528.2.edit

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CCGGTAATCCTGGCACGTGGCGGCTGCCATGATACCACCAANGAATTGGGTGTGGTGGACCTGCCCGG
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16529.1.edit

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16529.2.edit

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TCCAGGTTGCAGCCTGGTGGGTCAATCCAGTACTCTCCACTCTCCAGTCAGAAGTGGCACATCTGA
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TGCTGG

Fig. 15BBB

16530.1.edit

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AAAGGCTCGAGGTTGGTGTGGAACTCCGAGGACAGAGGGCTAAATCCATGAAGTTGGATG
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NACANGGGTGGCTGGCATCAAGGNG

16530.2.edit

TCGAGCGGCCGCCGGCAGGTCTGCCAAGGAGACCCTGTTATGCTGTGGGACTGGCTGGGCATGGC
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CTTCACCTTGATGCCACACCCCTGTCAGCAACACGTGGCGCACAGCAAGTGTCAACGTAAGTAAGT
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16531.1.edit

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GTCAGTCTGCAGCCAGAGTACAGAGGGCCAACACTGGTGTCTTGAAATA

16531.2.edit

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CTCTGGGACCTCCACAGTGGATTTCAGAACCTCAGGGACTCCATCTCCCTCTCCAGCCCCACAATTATG
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16532.1.edit

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TCTGAGNCTGTGGATAGCTGCCATGAAGTAACCTGAAGGAGGTGGCTGGTGGTANGGGTTGATTACAGG
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TG

Fig. 15CCC

01_16558.3.edit

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CCTG

02_16558.4.edit

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03_16535.1.edit

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04_16535.2.edit

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05_16536.1.edit

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Fig. 15DDD

07_16537.1.edit

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GGCCACACTGGGCTGAGTGGGGTACACCGCAGGTCTCACCAGTCTCATGTTGCAGAAAGACTTGATGGC
ATCCAGGTTGCAGCCTTGGTGGGGTCAATCCAGTACTCTCCACTCTCCAGTCAGAAGTGGGCACATCTT
GAGGTACCCGGCAGGTGCCGGGCCGGGTTCTGCGGTTGCCCTGGCTCCGGATGTTCTGATC
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CCCGCTCGA

08_16537.2.edit

TCGAGCGGTGCCCCGGGCAGGTTCTGTGACCGTGACCTCGAGGTGGACACCACCCCTCAAGAGCCTGAGC
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AGAAGAAAATGGTACATCAGCAAGGAACCCCAAGGACAAGAGGCATTGTCTGGTTCGGCGAGNAGCATG
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GCGACCACCGCT

Fig. 15EEE

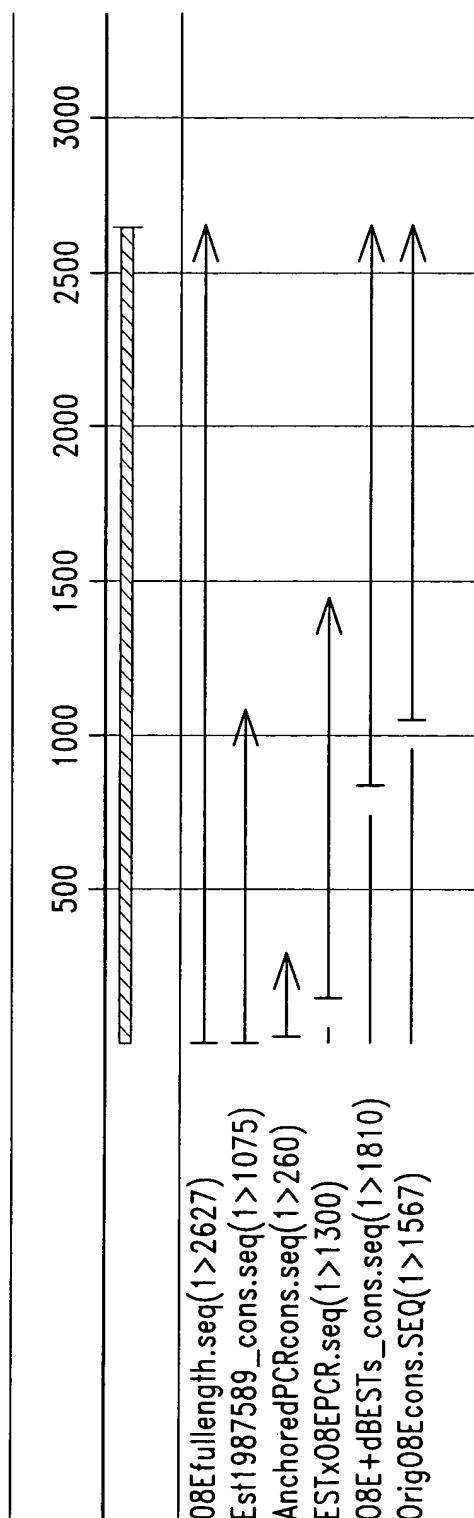


Fig. 16

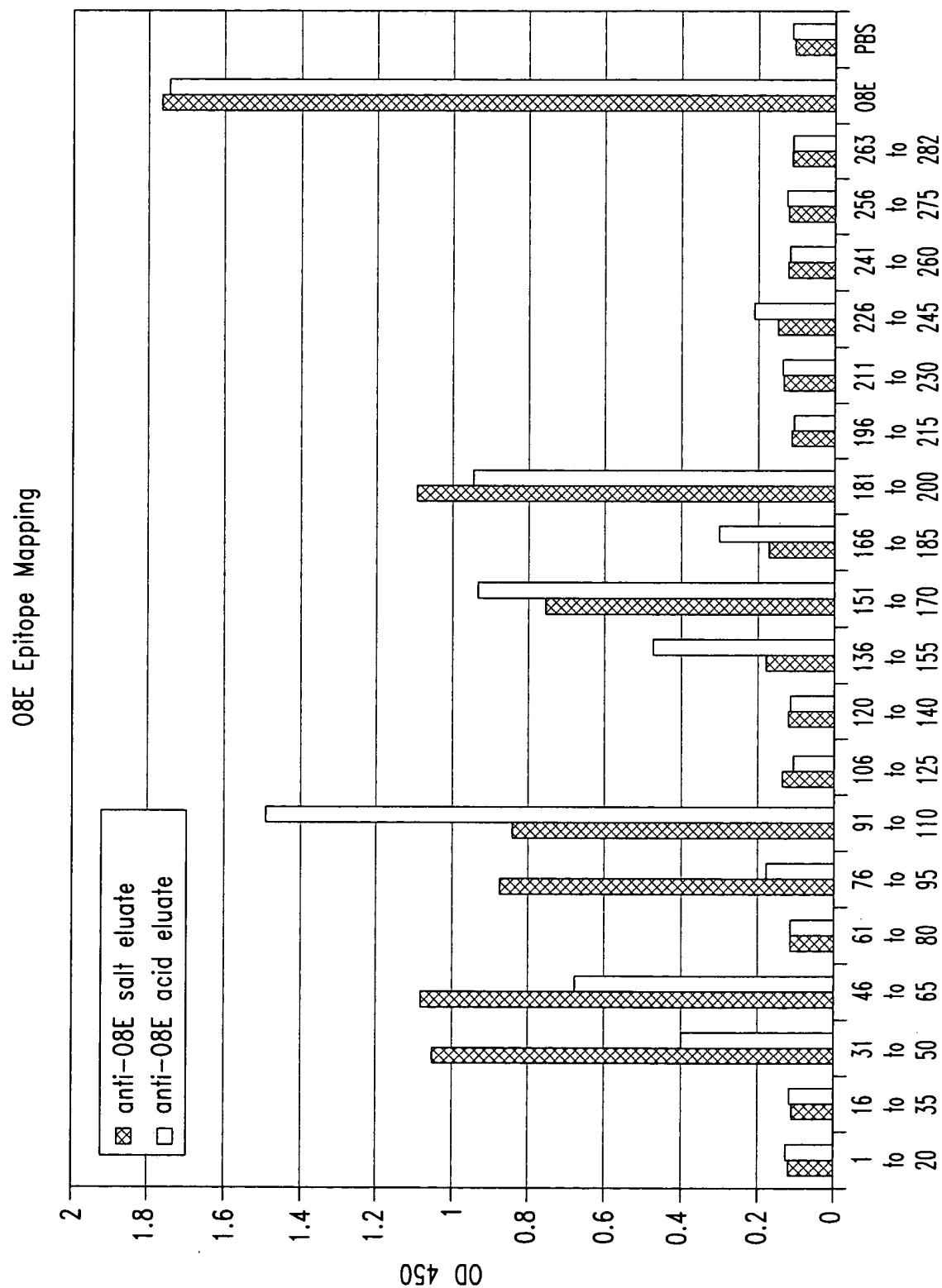
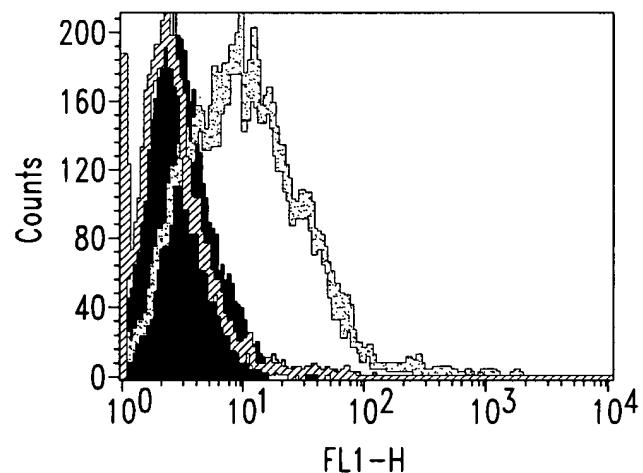


Fig. 17

08E Surface Expression



■ B305D/HEK stained with anti-08E antibody
— 08E/HEK stained with anti-08E antibody
— 08E/HEK stained with an irrelevant antibody

Fig. 18

Surface expression of 08E

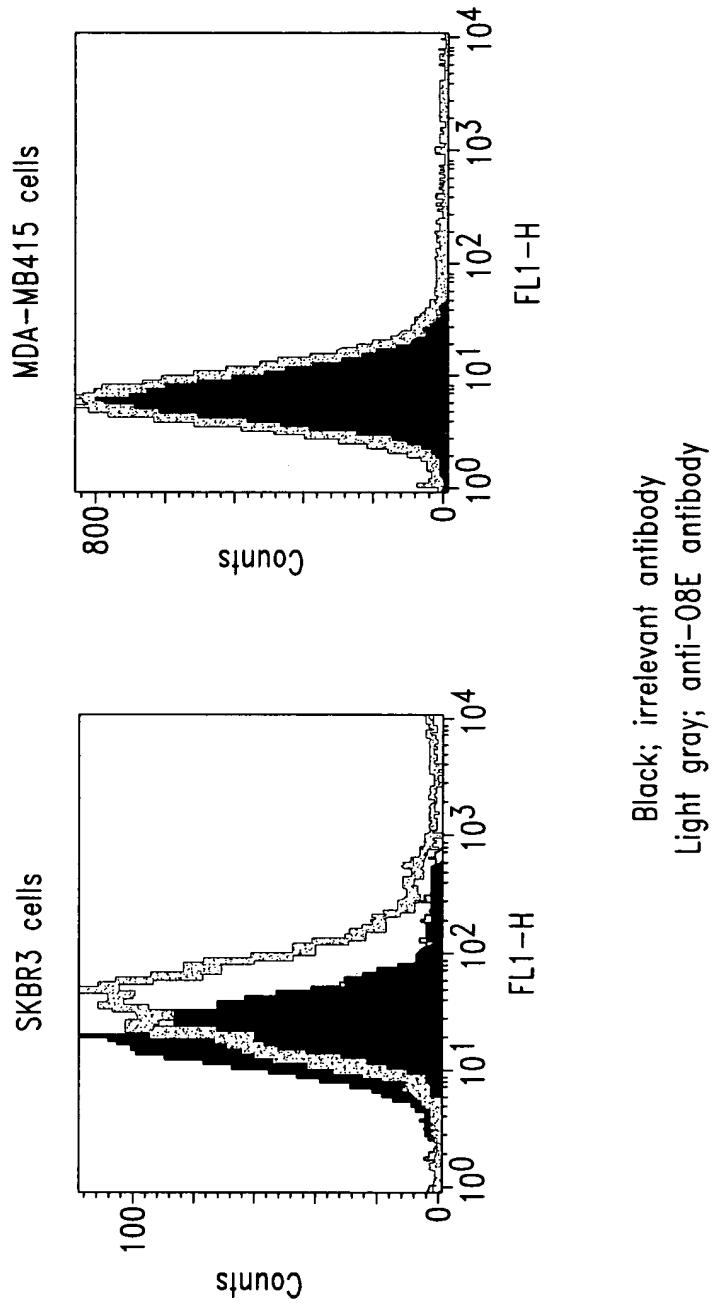
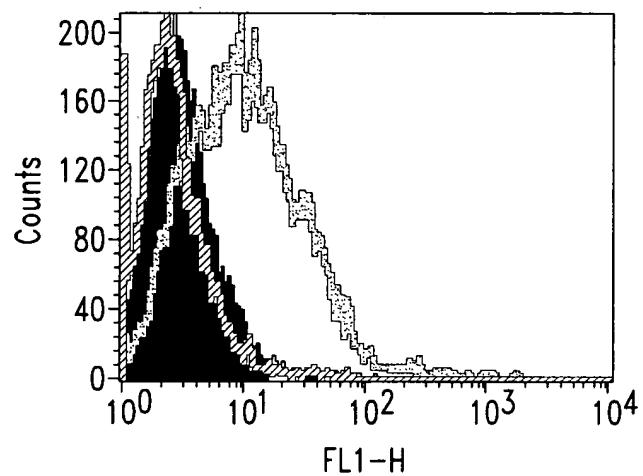


Fig. 19

08E Surface Expression



- B305D/HEK stained with anti-08E antibody
- ▨ 08E/HEK stained with anti-08E antibody
- ▩ 08E/HEK stained with an irrelevant antibody

Fig. 20

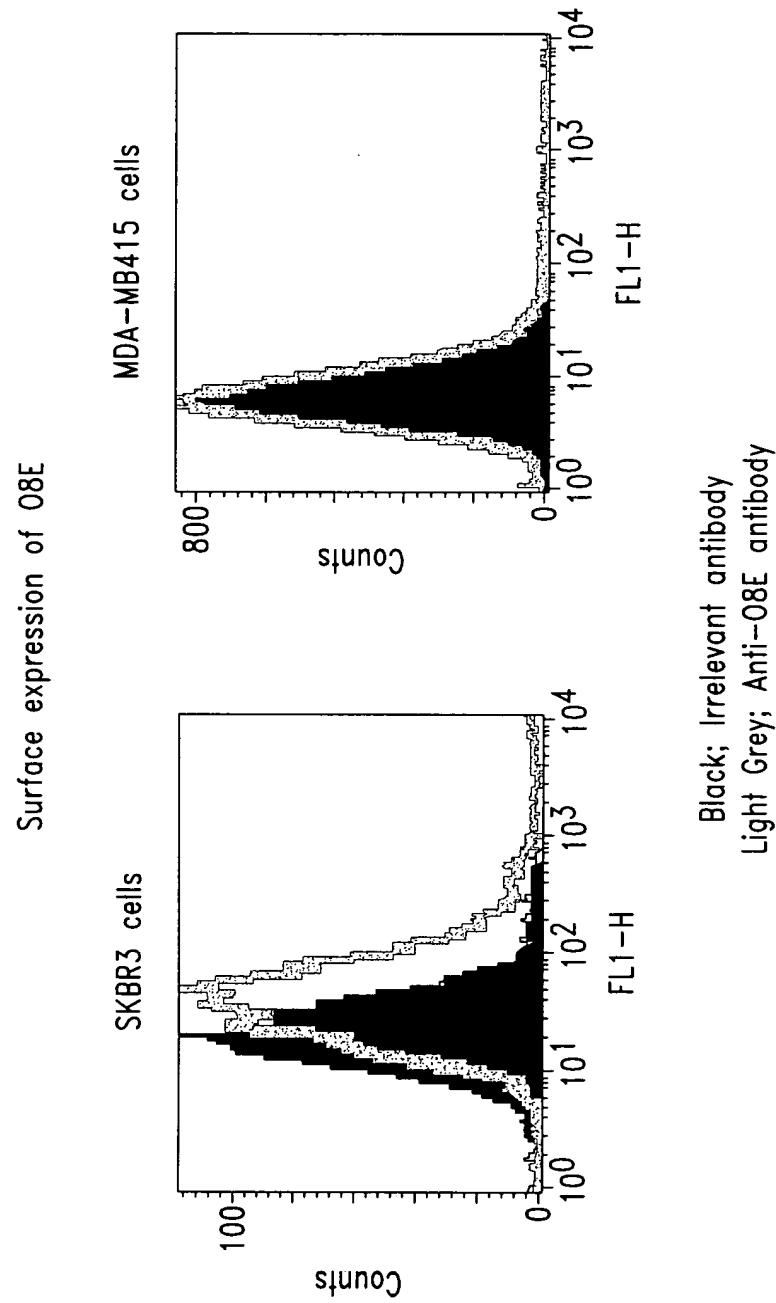


Fig. 21

Serial No. 09/827,271 Docket No. 210121.462C6

Inventor(s): Jennifer L. Mitcham et al.

Express Mail No. EV719392064US "REPLACEMENT SHEET"

08E expression in HEK293 Cells
(probed with anti-08E rabbit polyclonal sera #2333L)

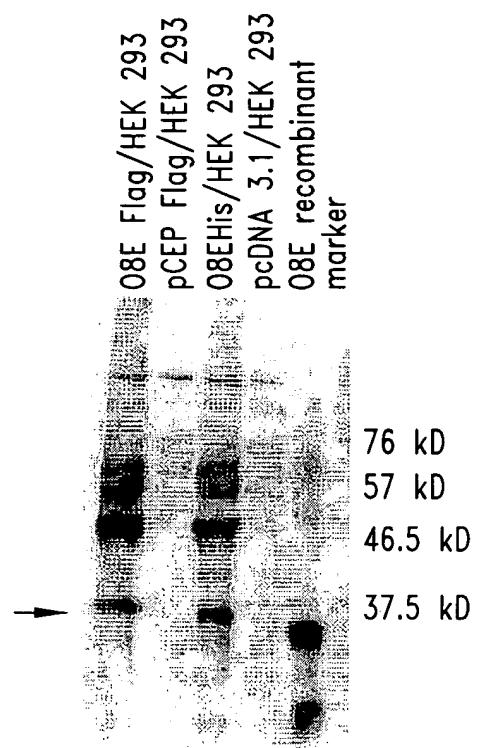


Fig. 22

08E Rabbits 01212000

Date: 1/21/99

Antigen on Plate	Sera Sample	Antibody Dilutions											
		1:1000	1:2000	1:4000	1:8000	1:16000	1:32000	1:64000	1:128000	1:256000	1:512000	1:1024000	1:2048000
08E (#632-24)	Preimmune sera (#2576L): 11/10/99	0.13	0.09	0.08	0.07	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07
	Average	0.11	0.08	0.07	0.07	0.07	0.07	0.06	0.07	0.07	0.06	0.06	0.07
	α -08E (#2576K): 1/11/2000	2.92	2.81	2.74	2.70	2.58	2.08	1.61	1.01	0.68	0.40	0.24	0.15
	Average	2.93	2.79	2.74	2.69	2.53	2.08	1.59	1.00	0.66	0.40	0.23	0.16
	Preimmune sera (#2333L): 11/10/99	0.09	0.07	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	Average	0.08	0.07	0.06	0.07	0.10	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	α -08E (#2333L): 1/11/2000	2.73	2.75	2.64	2.48	2.30	1.78	1.41	0.92	0.58	0.32	0.20	0.14
	Average	2.73	2.76	2.51	2.60	2.37	1.93	1.44	0.88	0.58	0.35	0.20	0.14

Fig. 23

affi-pure 08E #2576L 739.87A&B

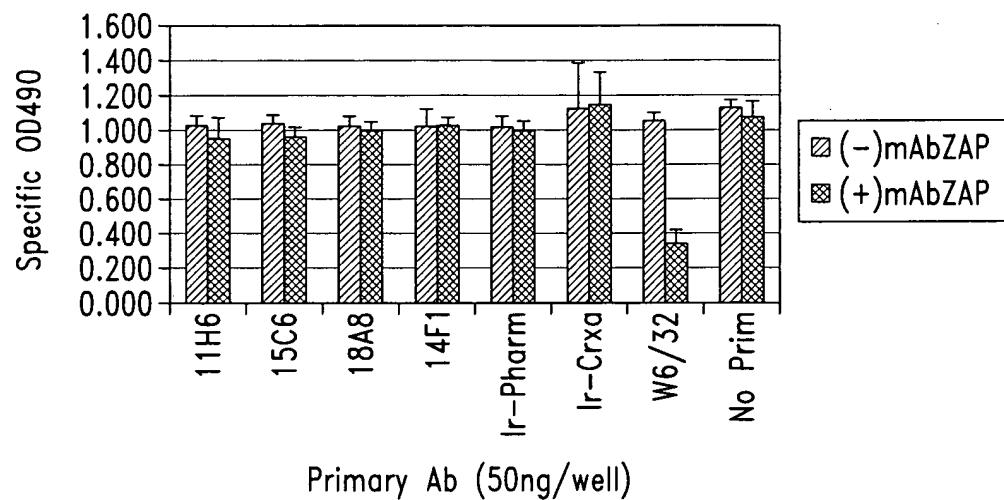
		Date: 5/2/2000		
Antibody Name	Rabbit #, Bleed Date	08E polyclonal 2576L, 1/11/2000		
Purification Method	affinity PBS	#705, p150		
Buffer Notebook				
Lot #	739.87A 1.4mg/ml		739.87B 1.7mg/ml	
Antibody Concentration				
Initial Amount	18mg		3mg	

Antigen on Plate	Sera Sample	Antibody Dilutions										
		1:1000	1:2000	1:4000	1:8000	1:16000	1:32000	1:64000	1:128000	1:256000	1:512000	1:1024000
08E #632-24	preimmune sera (2576L)	0.15	0.11	0.09	0.08	0.08	0.07	0.07	0.07	0.08	0.07	0.08
		0.14	0.10	0.09	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	Average	0.14	0.10	0.09	0.08	0.07	0.07	0.07	0.07	0.08	0.07	0.08
α -08E (2576K):2/8/2000	2.74	2.71	2.63	2.49	2.29	1.87	1.39	0.92	0.57	0.33	0.20	0.14
		2.72	2.68	2.64	2.47	2.26	1.93	1.42	0.94	0.57	0.34	0.21
	Average	2.73	2.70	2.63	2.48	2.27	1.90	1.41	0.93	0.57	0.34	0.21
affinity pure α -08E poly salt peak 739-87A	2.69	2.60	2.50	2.21	1.83	1.34	0.99	0.64	0.38	0.22	0.15	0.11
		2.59	2.48	2.38	2.21	1.82	1.33	1.00	0.62	0.37	0.22	0.14
	Average	2.64	2.54	2.44	2.21	1.83	1.34	1.00	0.63	0.37	0.22	0.15
affinity pure α -08E poly acid peak 739-67B	2.46	2.39	2.40	2.34	2.08	1.73	1.29	0.81	0.49	0.29	0.19	0.13
		2.65	2.66	2.61	2.45	2.14	1.76	1.30	0.82	0.48	0.29	0.19
	Average	2.56	2.53	2.51	2.39	2.11	1.74	1.30	0.81	0.49	0.29	0.19

Fig. 24

Anti-08E mAb Binding to 08E Amino Acids
61-80 Induces Ligand Internalization

Hek Internalization of 08E mAbs



Hek/08E Internalization of 08E mAbs

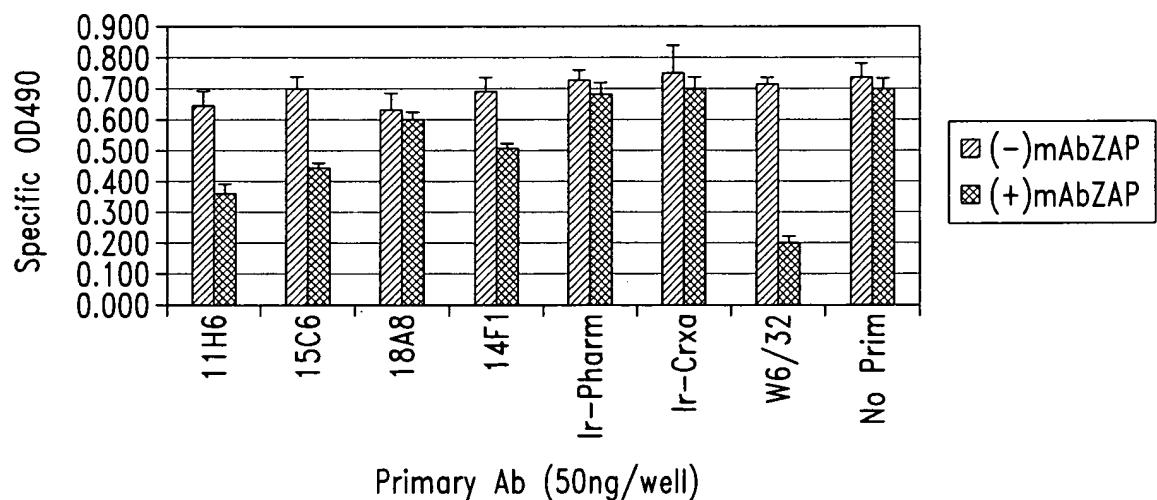


Fig. 25